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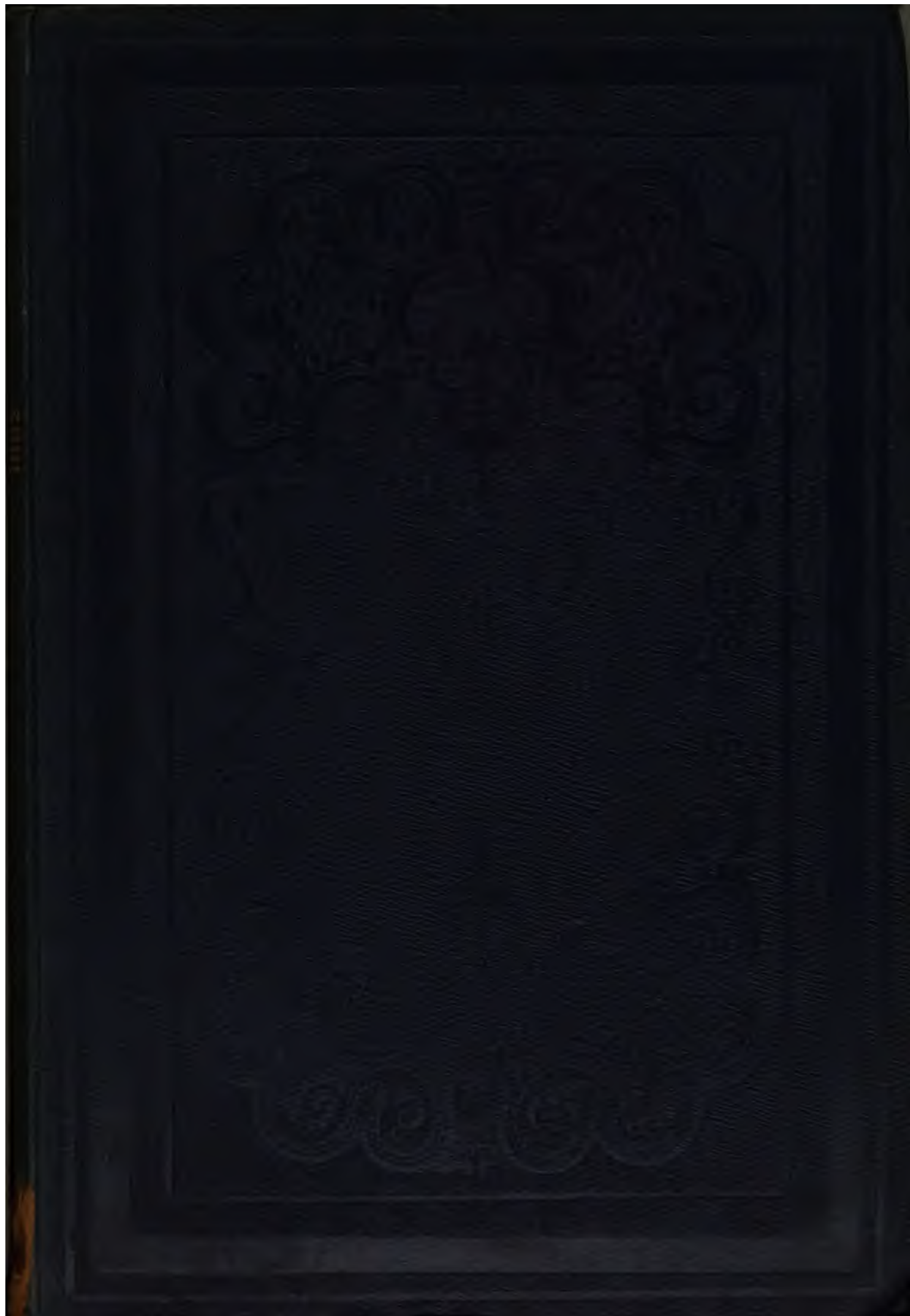
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15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.



ALPHABETICAL INDEX
OF
PATENTEES AND APPLICANTS FOR PATENTS
OF INVENTION,
For the Year 1862.

Printed and Published by Order of the Commissioners of Patents,

UNDER THE

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1863.

ALPHABETICAL INDEX

OF

PATENTEES AND APPLICANTS FOR PATENTS OF INVENTION,

FOR THE YEAR 1862.

Aba]

[Abe

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
A.			
ABADIE, ISMAEL ISAAC -	3246	3rd Dec. 1862	Manufacture of imitation lace and gimpure veils and other analogous articles.
ABBOTT, JOSEPH RICHARD -	2054	18th July 1862	Improvements in sliding chandeliers, gasaliers and other pendent lamps.
A'BECKETT, ARTHUR MARTIN, [F.R.C.S.]	674	12th March 1862	Railway signal apparatus.
ABEILHOU, JEAN LOUIS -	1403	10th May 1862	The application of a vegetable fibre alone or in combination with other matters in the manufacture of felted and other fabrics, also as a substitute for flock or powdered wool, and as a material for padding or stuffing and for other useful purposes.] (Patented by William Clark.)
ABEL, CHARLES DENTON -	383	13th Feb. 1862	Improvements in towing boats or other vessels on rivers and in apparatus employed for that purpose. (Communicated by Jean François Cail.)
ABEL, CHARLES DENTON -	1115	17th April 1862	Improvements in the manufacture and production of the chromates and the bi-chromates of potash and of soda. (Communicated by Louis Alexandre Tail-landier.)
ABEL, CHARLES DENTON -	1127	17th April 1862	Improvements in the manufacture and production of certain alloys containing cadmium. (Communicated by Henri Catherine Camille de Ruolz and Anselme Louis Marie Fontenay.)

Abe]

ALPHABETICAL INDEX OF PATENTEES

[Alc

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ABEL, CHARLES DENTON -	1617	29th May 1862	Apparatus for raising, propelling or exhausting air, water or other fluids or gases. (Communicated by Dr. Ignaz Heger.)
ABEL, CHARLES DENTON -	2627	26th Sept. 1862	A new or improved purifying and preservative lotion for the mouth. (Communicated by Johann Georg Popp.)
ABERCROMBIE, DAVID - -	793	22nd March 1862	Power looms.
ABRAHAM, JOHN - - -	2004	12th July 1862	Presses for raising or shaping metals.
ABSTERDAM, JOHN - - -	1967	8th July 1862	A new and useful composition to be used in shaft journal boxes. (Patented by Orange Watson Child.)
ACHARD, FRANÇOIS FERDINAND [AUGUSTE.	1268	30th April 1862	An improved electric apparatus applicable to various useful purposes. (Patented by George Davies.)
ADAM, WILLIAM MC - -	467	21st Feb. 1862	Improvements in sheaves or pulleys, journals, bushes and other similar bearing or rubbing surfaces.
ADAM, WILLIAM MC - -	717	15th March 1862	Improvements in the manufacture of blocks, pulleys and weights for window sashes and other purposes, and in the mode of applying the same.
ADAMS, ARTHUR JOHN - -	1710	7th June 1862	An improved method of rifling fire-arms.
ADAMS, JAMES - - -	3196	28th Nov. 1862	Apparatus for boiling and evaporating.
ADAMS, THOMAS - - -	533	27th Feb. 1862	Improved arrangements for effecting an equilibrium of the steam pressure upon valves, the said arrangements being also applicable for effecting equilibrium of fluid or gaseous pressure upon other valves.
ADAMS, WILLIAM BRIDGES -	440	19th Feb. 1862	Improvements in springs and their arrangement for moving and stationary purposes.
ADAMS, WILLIAM BRIDGES -	3482	31st Dec. 1862	Railways and tramways.
ADAMSON, DANIEL - - -	1820	20th June 1862	Improvements in the construction of steam boilers and in apparatus connected therewith, part of which is applicable to ship-building.
ADCOCK, JOHN - - -	1341	5th May 1862	Improved apparatus for measuring and indicating distances travelled by wheel carriages.
ADDISON, JOHN - - -	2647	29th Sept. 1862	Improvements in moorings or apparatus for securing articles, applicable also to the fixing of chairs for railways.
AGNEW, JOHN WASHINGTON -	148	20th Jan. 1862	A new or improved kind of last capable of being adjusted to various sizes and to various shapes of toes. (Communicated by Samuel Slater.)
AINSWORTH, WILLIAM - - -	3028	10th Nov. 1862	Certain improvements in looms for weaving.
AIRIAU, ATHANASE MATHURIN [PIERRE.	19	2nd Jan. 1862	A new musical instrument.
AITKEN, RUSSEL - - -	3340	13th Dec. 1862	Locomotive engines.
ALBARET, AUGUSTE BERNARD	858	27th March 1862	Threshing-machines. (Patented by John Henry Johnson.)
ALBARET, AUGUSTE BERNARD	868	28th March 1862	Chaff cutters. (Patented by John Henry Johnson.)
ALBINI, AUGUSTO - - -	3367	17th Dec. 1862	Breech-loading fire-arms.
ALCAN, EMILE - - -	1229	26th April 1862	An improvement in or addition to carding-engines. (Communicated by Celestin Martin.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

[All]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ALCAN, EMILE - - -	2098	23rd July 1862	Machines for combing and carding wool and other filamentous materials. (Communicated by Celestin Martin.)
ALCOCK, JOHN - - -	2764	14th Oct. 1862	Machinery for folding, measuring and hooking woven fabrics.
ALDEN, BRADFORD RIPLEY -	1239	26th April 1862	Lamps for burning coal oil and other hydro-carbons. (Patented by Alfred Vincent Newton.)
ALDERMAN, ALEXANDER JAR- [DINE.	2476	8th Sept. 1862	Improvements in ships' windlasses, capstans and cable stoppers, applicable generally to hauling and working with chains.
ALDON, WILLIAM - - -	293	4th Feb. 1862	Improvements in beating, stretching and drying fabrics and in the apparatus employed therein, part of which apparatus is also applicable for threshing linseed. (Patented by James Lee Norton.)
ALEXANDER, ROBERT - -	2611	25th Sept. 1862	Mariners' compasses.
ALFRAISE, PIERRE - - -	2879	25th Oct. 1862	Sewing-machines.
ALISON, JOHN - - -	191	24th Jan. 1862	Apparatus for tilling land by steam power.
ALISON, JOHN - - -	1731	10th June 1862	Improvements in harrows, and in the apparatus for steering or guiding of such and other agricultural implements.
ALLAN, JOHN FLEMING - -	1779	16th June 1862	Improved furnace arrangements to prevent smoke and economize fuel.
ALLCARD, JAMES HOBSON -	855	27th March 1862	Vices.
ALLCOCK, THOMAS - - -	1681	4th June 1862	Construction of horse rakes.
ALLCROFT, CHARLES - - -	861	28th March 1862	Pressure and vacuum gauges.
ALLEN, DAVID L. - - -	1448	13th May 1862	Steering-apparatus. (Patented by Robert Marsden Latham.)
ALLEN, EDWARD ELLIS - -	390	13th Feb. 1862	Improvements in the construction of steam-engines.
ALLEN, HORATIO - - -	2901	28th Oct. 1862	Improved apparatus for preparing leaves and stalks of plants for being cleaned or dressed for the purpose of obtaining the useful fibres they contain.
ALLEN, JOHN FRANKLIN -	1199	24th April 1862	Improvements in slide valves and valve gear for steam-engines.
ALLEN, MATTHEW - - -	244	30th Jan. 1862	Improvements in the construction of buildings for the prevention of fire, and in the materials to be employed therein and therefor.
ALLEN, WILLIAM DANIEL -	368	13th Feb. 1862	Improvements in the manufacture of stamp heads and beds employed in crushing ores and other mineral substances.
ALLEYNE, JOHN GAY NEWTON	1228	26th April 1862	Improvements in machinery and apparatus for the preparation and manufacture of iron and steel.
ALLEYNE, JOHN GAY NEWTON	2412	1st Sept. 1862	Manufacture of flanged wrought iron or steel plates, and of wrought-iron beams and frames of a trough-shaped section, and in the apparatus employed for that purpose.
ALLIBON, GEORGE - - -	1683	4th June 1862	Surface condensers and superheaters.
ALLINSON, JAMES - - -	1287	1st May 1862	Manufacture of carpet fabric.
ALLINSON, RICHARD - - -	2366	26th Aug. 1862	Improvements in the manufacture or treatment of articles of steel, and in the apparatus employed therein.

[All]

ALPHABETICAL INDEX OF PATENTEES

[And]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ALLMAN, HERBERT - -	1328	5th May 1862	Certain improvements in the construction of locks.
ALSING, JOHN ROBERT - -	1981	9th July 1862	Preparation of beverages. (Patented by Sven Victor Evers.)
AMAN, GODFREY JOACHIM - -	864	12th Feb. 1862	Improvements in envelopes or bags to hold grain or similar substances for transmission by post or as parcels.
AMBLER, AUGUSTINE IREL - -	712	15th March 1862	An improved brake for railroad carriages. (Patented by William Clark.)
AMBLER, AUGUSTINE IREL - -	1587	27th May 1862	Brakes for railroad carriages. (Patented by William Clark.)
AMBLER, ROSELINE NANCY - -	712	15th March 1862	An improved brake for railroad carriages. (Patented by William Clark.)
AMBLER, ROSELINE NANCY - -	1587	27th May 1862	Brakes for railroad carriages. (Patented by William Clark.)
AMENC, M. LEON - -	1179	23rd April 1862	Lubricating-apparatus. (Patented by George Henry Birkbeck.)
AMES, NATHAN - -	1490	16th May 1862	A new and useful self-feeding card printing press.
AMIES NATHANIEL JONES - -	2223	8th Aug. 1862	Certain improvements in the manufacture of bearings, journals and steps employed in machinery and for carriage and other axles.
AMIES, NATHANIEL JONES - -	2243	11th Aug. 1862	Improvements in the manufacture of bearings or steps employed in machinery and railway and other carriages, and in a composition to be applied thereto.
AMIES, NATHANIEL JONES - -	3156	24th Nov. 1862	An improved fabric to be employed as a substitute for elastic woven or braided webs, and improvements in the method of manufacturing the same.
AMOS, JAMES CHAPMAN - -	1164	21st April 1862	An improved mode of and improvements in apparatus for supplying surface condensers with water, part of which improvements is applicable to blowers and rotary pumps generally.
AMOS, JAMES CHAPMAN - -	3033	10th Nov. 1862	Improved machinery for sawing wood.
AMOS, MARK - - -	945	3rd April 1862	Harrowes.
AMPHLET, SAMUEL - - -	2682	4th Oct. 1862	Ornamenting surfaces of wood.
ANDERSON, FREDERICK BONA- [PARTE.]	1486	16th May 1862	Watches and other time-keepers.
ANDERSON, FREDERICK BONA- [PARTE.]	3474	30th Dec. 1862	Watches and other time-keepers.
ANDERSON, JAMES - - -	2112	25th July 1862	Improvements in separating gluten from starch and in preparing gluten for food.
ANDERSON, JOHN - - -	3209	29th Nov. 1862	Manufacture of the tyres of railway wheels and rails, switches and crossings of railways.
ANDERSON, THOMAS - - -	2740	10th Oct. 1862	Construction of ships or vessels.
ANDERSON, WILLIAM - - -	1130	17th April 1862	Tubular steam-generators.
ANDERSON, JAMES JOHN - -	2953	31st Oct. 1862	A new or improved mode and means for the production of leather from waste leather scraps, and also for producing from such waste leather scraps in combination with india-rubber, gutta-percha or other like substance new material to be used as leather and for other purposes.

And]

AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ANDERTON, JOHN - -	1833	21st June 1862	Certain improvements applied to the tape- leg or sizing machine, and in the appa- ratus employed therein for the purpose of improving the yarn.
ANDRÉ, JEAN LOUIS - -	1353	6th May 1862	An improved buckle or fastening. (Patented by William Clark.)
ANDREAE, BERNARD - -	2890	27th Oct. 1862	Self-acting apparatus for discharging the water resulting from the condensation of steam. (Patented by Frederick Ludovicus Henri William Bünger.)
ANDREW, JAMES EDWARD [HYDE.	1007	9th April 1862	Looms for weaving.
ANDREW, THOMAS CECIL -	2382	27th Aug. 1862	Improved machinery for printing from en- graved plates. (Patented by Alfred Vincent Newton.)
ANDREW, WILLIAM HENRY -	3068	14th Nov. 1862	Scissors and shears.
ANDREWS, ALFRED - -	2941	31st Oct. 1862	An improved tool for cutting and rasping pegs in boots and shoes.
ANGELO, MARTIN KENNETH -	2357	23rd Aug. 1862	Apparatus used in the manufacture of shellac.
ANSTRUTHER, WINDHAM [CHARLES JAMES.	665	12th March 1862	Improvements in the arrangement of the electric conductors for submarine tele- graphs. (Patented by Alexander James Russell.)
ANTOGNINI, BERNARDO - -	1612	29th May 1862	Manufacture of boots and shoes.
APPLEBY, HENRY - - -	2045	17th July 1862	Improvements in armour plates for ships of war, floating and land batteries and other like purposes.
APPLEGARTH, AUGUSTUS -	1219	25th April 1862	Improvements in printing in colors and in apparatus to be employed for this pur- pose.
APPLEGATE, FRANK - -	3483	31st Dec. 1862	Manufacture of a kind of woollen cloth known to the trade as deerskin.
APPOLD, JOHN GEORGE - -	1733	10th June 1862	Improved apparatus for regulating the dis- charge of water and other liquids, and air and other gases.
ARBÔS, JACQUES - - -	3093	18th Nov. 1862	Improvements in generating certain gases for lighting and heating, and in apparatus employed therein.
ARBÔS, JACQUES - - -	3108	19th Nov. 1862	Improvements in generating certain gases for obtaining motive-power, and in the apparatus employed therein.
ARDREY, SAMUEL BRADLEY -	1432	13th May 1862	Improvements in machinery or apparatus for manufacturing spindles, part of which apparatus is also applicable to grinding and polishing other articles.
ARGENCE, PIERRE NOS D' -	1801	18th June 1862	Electrical brushes. (Patented by William Edward Newton.)
ARGY, EDMOND ARMAND [LOUIS D'.	3145	22nd Nov. 1862	Candle lamps. (Patented by William Clark.)
ARMITAGE, WILLIAM - -	1022	10th April 1862	Looms for weaving.
ARMSTRONG, HENRY - -	2560	18th Sept. 1862	Dry and wet gas meters.
ARNAUD, CHARLES - -	400	14th Feb. 1862	Machinery or apparatus for propelling ships and boats. (Patented by John Henry Johnson.)

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ALPHABETICAL INDEX OF PATENTEEES

[Ash]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ARNIER, LOUIS - - -	80	10th Jan. 1862.	Improvements in apparatus for generating and applying steam as a motive-power. (Patented by William Clark.)
ARNOLD, THOMAS - - -	3257	4th Dec. 1862	Manufacture of warp fabrics.
ARSDALE, ABRAHAM VAN -	885	29th Mar. 1862	An improved mode of applying acoustic apparatus in churches and other buildings and apartments. (Patented by William Edward Newton.)
ARTINGSTALL, FREDERICK [Dicas.]	2489	8th Sept. 1862	Balances.
ARUNDELL, JAMES WHITTON -	28	4th Jan. 1862	An improved method and improved apparatus for treating and dressing ores and minerals, particularly applicable to tin, lead, copper, zinc and iron ores. (Communicated by Mr. Martin Neuerburg.)
ARUNDELL, JAMES WHITTON -	29	4th Jan. 1862	An improved method and improved apparatus for removing impurities from coal, parts of which invention are applicable for the separation and cleansing of ores and other minerals. (Communicated by Mr. Martin Neuerburg.)
ARUNDELL, JAMES WHITTON -	30	4th Jan. 1862	An improved method of and apparatus for communicating motion to fan ventilators particularly applicable to ventilating mines. (Communicated by Mr. Martin Neuerburg.)
ASAY, ABRAHAM MERRITT -	662	11th Mar. 1862	Improvements in attaching artificial teeth to plates and to each other, and in moulds for forming artificial teeth. (Patented by George Davies.)
ASAY, JACOB LAMBERT - -	662	11th Mar. 1862	Improvements in attaching artificial teeth to plates and to each other, and in moulds for forming artificial teeth. (Patented by George Davies.)
ASBURY, WILLIAM - - -	2404	29th Aug. 1862	Construction of wheels and axle-trees for carriages.
ASBURY, WILLIAM - - -	2609	24th Sept. 1862	Improvements in the manufacture of metallic bedsteads, part of which improvements are also applicable for ornamenting tubes and curtain and cornice poles.
ASHBURY, JOHN - - -	1111	16th April 1862	Improvements in the permanent way of railways.
ASHBY, THOMAS WOODHOUSE	1205	24th April 1862	Improved apparatus for obtaining motive-power from the wind. (Communicated by Ludwig Hauswald, Friederich Hauswald, and Carl Gustav Dittmar.)
ASHE, EDWARD DAVID -	863	28th March 1862	An improved mode of and apparatus for driving the propelling shafts of ships or vessels. (Patented by William Austin Ashe.)
ASHE, EDWARD DAVID - -	3051	12th Nov. 1862	Improved apparatus for communicating rotary motion to shafts or axles for various purposes. (Patented by John Alexander Duntze.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ASHE, WILLIAM AUSTIN -	863	28th March 1862	An improved mode of and apparatus for driving the propelling shafts of ships or vessels. (Communicated by Edward David Ashe.)
ASHTON, GEORGE - - -	1614	29th May 1862	Improvements in dyeing fibrous substances and in the means or apparatus employed for that purpose.
ASHTON, WILLIAM - - -	470	2nd Feb. 1862	Certain improvements in machinery or apparatus employed in the manufacture of braids and similar articles.
ASHTON, WILLIAM - - -	1998	11th July 1862	Certain improvements in machinery employed in the manufacture of "braids" and similar articles, parts of which improvements are also applicable to machinery used in spinning fibrous substances.
ASHWELL, CHARLES - - -	1298	2nd May 1862	An improved safety fastening applicable to the locks of doors.
ASHWORTH, HANDEL - - -	1427	12th May 1862	Improvements in machinery for opening and carding cotton and other fibrous substances.
ASHWORTH, HENRY - - -	304	5th Feb. 1862	Certain improvements in machinery or apparatus employed in spinning cotton and other fibrous substances.
ASPELL, JAMES - - -	3169	26th Nov. 1862	Certain improvements in looms for weaving.
ASPINALL, JAMES - - -	1216	25th April 1862	An improved apparatus for the safe conveyance from sea to land of ships' papers, documents, money and other valuables when wrecks or other casualties occur at sea.
ASTEL, EDOUARD - - -	2536	16th Sept. 1862	Improvements in urinary utensils, also applicable to fixed and portable commodes.
ASTLEY, PETER HYDE - - -	315	6th Feb. 1862	Improvements in the construction of life boats, applicable also to ships' boats, gun boats and other vessels.
ASTON, WILLIAM - - -	2705	7th Oct. 1862	Certain improvements in the manufacture of buttons for ladies' and gentlemen's wear.
ASTROP, WILLIAM - - -	2936	31st Oct. 1862	Manufacture of paper.
ATKINSON, JOHN STAINES -	2514	12th Sept. 1862	Machinery for manufacturing printing types.
ATKINSON, THOMAS LAMB -	1929	2nd July 1862	Construction of stew pans and other such like cooking utensils.
ATKINSON, WILLIAM HENRY -	2438	3rd Sept. 1862	Improvements in studs or fastenings adapted to holding together parts of shirt fronts, wrist bands, collars, gloves and other articles of wearing apparel.
ATTERBURY, JAMES SEAMAN -	1238	26th April 1862	Improvements in the manufacture of hollow glass ware. (Patented by Alfred Vincent Newton.)
ATTERBURY, THOMAS BAKE- [WELL.]	1238	26th April 1862	Improvement in the manufacture of hollow glass ware. (Patented by Alfred Vincent Newton.)
ATKINS, WILLIAM ALFRED -	3126	21st Nov. 1862	Improvements in compressing or dressing bricks and tiles and other materials, and in machinery or apparatus to be employed for such purposes.
ATTWOOD, CHARLES - - -	1473	15th May 1862	Improvements in the production or manufacture of steel and iron of a steely quality.
ATTWOOD, THOMAS - - -	1161	21st April 1862	Kitcheners.

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ALPHABETICAL INDEX OF PATENTEEES

[Bag

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
AUBREVILLE, LÉOPOLD D. -	1389	9th May 1862	Improvements in metallic cross sleepers for railways. (Communicated by Mr. Pierre Quantin.)
AULD, DAVID - - -	3181	27th Nov. 1862	Improvements in working furnaces and steam-boilers, and in apparatus connected therewith.
AULD, DAVID, Junior - -	3181	27th Nov. 1862	Improvements in working furnaces and steam-boilers, and in apparatus connected therewith.
AULHORN, CHARLES THRO- [DORE.	1028	10th April 1862	Improvements in the preparation of materials to be employed in the making of beer, and in the machinery or apparatus employed therein. (Patented by George Dirs Mertens.)
AUSTIN, WILLIAM - - -	3173	26th Nov. 1862	An improved material for the manufacture of cartridge cases, applicable also for tubing and various other useful purposes.
AUTREUX, ERNEST - -	750	18th March 1862	Improvements in the manufacture of paper from wood and in apparatus used therein. (Patented by Henry Bailly.)
AVERY, JOHN - - -	722	15th March 1862	Purifying coal. (Communicated by John Reed.)
AVERY, WILLIAM - - -	405	15th Feb. 1862	Improvements in machinery for the manufacture of screws, a part or parts of which improvements may also be used in the manufacture of pins, rivets and nails.
AZEMAR, PIERRE DESTAING -	544	28th Feb. 1862	An improved mechanical arrangement for the winding up and the setting of the hands of watches by means of the knob of the pendant.

B.

BACHELLERIE, LÉO - -	294	4th Feb. 1862	Improvements in the manufacture of hard and soft soaps, and in the preparation of liquids for washing linen and other textile fabrics. (Patented by Richard Archibald Brooman.)
BADDELEY, WILLIAM - -	779	20th March 1862	An improved method of preparing tobacco for smoking and in the apparatus to be used for that purpose. (Communicated by Charles Hoppe.)
BAGGETT, FRANCIS - -	256	31st Jan. 1862	An improvement or improvements in breech-loading small arms.
BAGGS, ISHAM - - -	1475	15th May 1862	Improvements in treating straw, Spanish grass and other vegetable fibres, in preparing a bleaching agent for vegetable fibres, and in recovering and treating an alkali resulting from the treatment of the said fibres, and in apparatus employed therein.

[Bag]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Bam]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAGULEY, GEORGE - -	2784	10th Oct. 1862	An improved construction of insulator for telegraph wires.
BAILEY, BENJAMIN - -	2180	30th July 1862	Improvements in means or apparatus for cutting chaff and other vegetable matters, which improvements are also applicable to cutting or mowing short or lawn grass.
BAILEY, JOHN WINFIELD -	3486	29th Dec. 1862	Improvements in cartridges, and in the mode of charging small arms and ordnance. (Patented by George Haseltine.)
BAILLY, HENRY - - -	750	18th March 1862	Improvements in the manufacture of paper from wood and in apparatus used therein. (Communicated by Ernest Autreux and Michel and Joseph Cotton, Brothers.)
BAIRD, JOHN - - -	1839	21st June 1862	Certain new and useful improvements in steam-engine valves. (Patented by George Tomlinson Bougfield.)
BAKER, JAMES WOOD - -	3336	13th Dec. 1862	Machinery or apparatus for spinning cotton and other fibrous materials.
BAKER, JOHN - - -	882	29th March 1862	Improved alimentary preparations.
BAKER, JOSEPH - - -	1660	2nd June 1862	Pumps.
BAKER, WHITMORE - -	192	25th Jan. 1862	Improvements in fire-arms, adapted to prevent their accidental discharge.
BAKEWELL, FREDERICK COL- [LIER.]	955	4th April 1862	Letter printing machines. (Communicated by William Bullock.)
BAKEWELL, FREDERICK COL- [LIER.]	2436	3rd Sep. 1862	Fireplaces and stoves. (Communicated by Marshall Daniel Wellman.)
BAKEWELL, FREDERICK COL- [LIER.]	3411	22nd Dec. 1862	Improvements in transmitting and receiving communications by means of electricity.
BALDAMUS, ADOLPH - -	699	13th March 1862	Purifying illuminating gas.
BALDAMUS, ADOLPH - -	2835	21st Oct. 1862	Improvements in waterproofing and in recovering products employed therein. (Patented by Richard Archibald Brooman.)
BALDAMUS, ADOLPH - -	3355	16th Dec. 1862	Improvements in ornamenting textile fabrics, leather and other surfaces, in a cement employed therein which is also applicable to the waterproofing of fabrics and materials, and in apparatus for applying and spreading such waterproofing cement. (Patented by George Cockburn Warden.)
BALDAMUS, ADOLPH - -	3363	16th Dec. 1862	Improvements applicable to all kinds of oils used for illuminating purposes, whereby combustion thereof is rendered more perfect, smoke prevented, and the purity of the light increased.
BALL, THOMAS - - -	613	7th March 1862	Improvements in the manufacture of warp fabrics in warp machines.
BALL, WILLIAM - - -	613	7th March 1862	Improvements in the manufacture of warp fabrics in warp machines.
BALLANTINE, DAVID, JR. -	1143	19th April 1862	Mills for grinding.
BALLIAN, SERKIS - - -	769	19th March 1862	Rotary engines. (Patented by Richard Archibald Brooman.)
BALMFORTH, EDWARD - -	2532	15th Sept. 1862	Machinery employed in finishing textile fabrics, commonly called "raising gigs."
BAMLETT, ADAM CARLISLE -	311	6th Feb. 1862	Reaping and mowing machines.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BANFIELD, EDWARD - -	12	1st Jan. 1862	Improvements in lubricating and maintaining in working order axle journals and brasses, applicable also to other journals and bearings.
BANKS, DANIEL LANCASTER -	1892	27th June 1862	A new method of constructing a portable covered coffer dam or apparatus for facilitating operations under the water, in the water or out of the water, and apparatus connected therewith.
BANKS, DANIEL LANCASTER -	1893	27th June 1862	A method of constructing a portable sectional dry dock and apparatus connected therewith.
BANKS, JAMES - - -	749	18th March 1862	Improvements in electro-magnetic telegraph printing apparatus or marking instruments, and the instruments or apparatus to be used in connection therewith.
BANWELL, JOHN - -	2991	5th Nov. 1862	Apparatus for punching by means of hydraulic pressure.
BAPTY, JOHN - - -	2786	15th Oct. 1862	Apparatus for preparing wool and other fibrous materials.
BARBAT, LÉONARD - -	141	20th Jan. 1862	A new and improved fabric applicable to the manufacture of hats, bonnets and other like articles.
BARBER, HARRY - - -	69	9th Jan. 1862	Safety lamps.
BARBER, HENRY - - -	2013	12th July 1862	Rolling iron, steel and other metals for cutlery tools and other purposes.
BARBER, JOSHUA - - -	54	8th Jan. 1862	Improvements in hand mules, consisting of a break and backing off motion.
BARBER, WILLIAM - -	737	17th March 1862	Improvements in the manufacture of hats.
BARBEZIÈRES, SUBLIME NA- [POLÉON DE LA HARPE DE	721	15th March 1862	An improved construction of horse shoe.
BARBIER, HERCULE - -	1838	21st June 1862	Apparatus for preventing collisions on railways. (Patented by Frederick Tolhausen.)
BARBORIN, ACHILLE - -	2075	21st July 1862	An improved pomade or balsam. (Patented by William Clark.)
BARBOUR, JOHN - - -	1097	16th April 1862	Improvements applicable to upholsterers' and other hand hammers. (Communicated by William Thomson.)
BARCLAY, ANDREW - -	646	10th March 1862	Improvements in traction engines, and in apparatus for indicating the pressure of steam.
BARCLAY, ANDREW - -	2490	10th Sept. 1862	Improvements in traction engines, and in apparatus for indicating the pressure of steam.
BARCLAY, ANDREW - -	2505	11th Sept. 1862	Locomotive boring and winding engines.
BARCLAY, ANDREW - -	2680	4th Oct. 1862	Improvements in printing textile materials and fabrics, and in machinery therefor.
BARCLAY, JAMES - - -	2299	15th Aug. 1862	Improved machinery for the manufacture of nails.
BARCLAY, JOHN - - -	3152	24th Nov. 1862	Improvements in the construction and arrangement of rollers to be used in machinery for printing textile materials or fabrics, and in apparatus for drying and finishing the said materials or fabrics.
BARCLAY, ROBERT - -	2306	16th Aug. 1862	Chronometers and other timekeepers.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARFORD, WILLIAM - -	736	17th March 1862	Rollers for rolling land.
BARKER, JONATHAN - -	604	6th March 1862	Improvements in and means or apparatus for casting drums, pulleys, gear and other wheels, and bushes or keys for the same.
BARLOW, EDWARD - -	2765	14th Oct. 1862	Certain improvements in machinery for driving cotton gins, and for preparing and combing cotton and other fibrous substances.
BARLOW, GEORGE - - -	1549	22nd May 1862	A new or improved method of laying submarine telegraphic cables. (Communicated by Thomas Shaw.)
BARLOW, HENRY BERNOULLI	155	21st Jan. 1862	Improvements in machinery or apparatus for counting and indicating the number of revolutions of shafts or other articles, and for exerting power. (Communicated by Arnold Caisisch.)
BARLOW, HENRY BERNOULLI	437	19th Feb. 1862	Improvements in carding or otherwise preparing cotton and other fibrous materials, and in machinery employed therein. (Communicated by Sixte Pierre Villain.)
BARLOW, HENRY BERNOULLI	1529	21st May 1862	Presses for cotton and other substances. (Communicated by Isaac Mason.)
BARLOW, HENRY BERNOULLI	2237	11th Aug. 1862	Machines for weaving, warping, sizing and dressing. (Communicated by Hyppolite Victor Hermite.)
BARNET, FREDERIC - -	439	19th Feb. 1862	An improved lamp or lantern for street-lighting and other purposes.
BARNETT, FREDERIC - -	1207	25th April 1862	Improved electric danger signals for railways and other cognate purposes.
BARNETT, FREDERIC - -	2313	19th Aug. 1862	An improved lamp or lantern for street-lighting and other purposes.
BARNETT, SAMSON - - -	1380	5th May 1862	Helmets for divers.
BARNINGHAM, WILLIAM -	2790	16th Oct. 1862	Permanent way of railways.
BARON, ALBERT DENIS - -	2009	12th July 1862	Machinery or apparatus for washing ores and minerals. (Patented by John Henry Johnson.)
BARON, VICTOR JULES - -	2009	12th July 1862	Machinery or apparatus for washing ores and minerals. (Patented by John Henry Johnson.)
BARR, WILLIAM - - -	1847	23rd June 1862	An improved manufacture of raised or brocaded fabrics woven in cotton or flax, either alone or in combination with wool.
BARRACLOUGH, THOMAS [CRITCHLEY.	3374	17th Dec. 1862	Machinery for spinning, twisting and rolling tobacco. (Communicated by Ernst Breul.)
BARRETT, ROBERT - - -	2060	19th July 1862	Apparatus for working the damper of steam-engine furnaces.
BARRETT, STEPHEN - - -	1094	16th April 1862	Projectiles.
BARRETT, WILLIAM - - -	2344	22nd Aug. 1862	Casting railway sleepers and chairs where tie bars are used.
BARTER, RICHARD - - -	1182	23rd April 1862	Improvements in apparatus for distributing and projecting fluids either for surgical, sanatory, or domestic purposes.
BARTER, WILLIAM - - -	654	11th March 1862	Improvements in apparatus for propelling vessels, and for enabling them to work off lee shores during storms.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARTHOLOMEW, CHARLES -	1034	10th April 1862	Improvements in making circular blooms such as are used in the manufacture of tyres and for other purposes.
BARTHOLOMEW, WILLIAM [HAMOND.	330	7th Feb. 1862	Improvements in barges or vessels suitable for the navigation of canals and rivers.
BARTLETT, JOSEPH WEA- [THERBY.	746	18th March 1862	An improved combination of cooling and filtering apparatus, forming a safe for the preservation of solid and liquid provisions. (Patented by Marc Antoine François Menons.)
BARY, JULIUS DE - - -	854	27th March 1862	Machinery for the manufacture of cigars. (Patented by Robert De Bary.)
BARY, ROBERT DE - - -	854	27th March 1862	Machinery for the manufacture of cigars. (Communicated by Julius De Bary.)
BASSANO, MANUEL LUIS [GODOY PRINCE DE.	3211	29th Nov. 1862	Manufacture of leather. (Patented by Michael Henry.)
BASSET, JEAN JOSEPH - - -	279	1st Feb. 1862	Improvements in machinery or apparatus for the manufacture of festooned edging or material. (Patented by William Clark.)
BASTIDA, EUGENE DE LA -	1542	22nd May 1862	A new process for the production of designs in relief, and in deepening on sheets of india-rubber of any length whatever. (Communicated by Messrs. Albert Cohen and Charles Vaillant.)
BASTIDA, EUGENIO DE LA -	2566	19th Sept. 1862	An improved cover for chimneys adapted to prevent them from smoking and to facilitate the extinguishing of fires therein. (Communicated by Mr. Auguste Louis Cesar de Montague.)
BATE, JOHN - - - -	154	21st Jan. 1862	Improvements in machines for corking or stopping the mouths of bottles, jars or any vessel requiring to be stopped up air-tight.
BATE, WILLIAM - - - -	2334	21st Aug. 1862	Alphabetical electric telegraphs.
BATEMAN, DANIEL - - -	2012	12th July 1862	Manufacture of "card cloth" used for carding wool and other fibrous substances.
BATES, GEORGE NORTON -	1178	23rd April 1862	Dressing lace and other fabrics.
BATES, JOHN JOSEPH - -	2625	26th Sept. 1862	A new or improved window sash fastener and guard.
BATH, EDWARD - - - -	2856	23rd Oct. 1862	Treating alkali waste to obtain sulphur therefrom.
BATHIAS, CLAUDE MARIE -	1112	16th April 1862	Improvements in railway and common road carriages. (Patented by John Henry Johnson.)
BATHO, WILLIAM FOTHERGILL	546	28th Feb. 1862	Locomotive engines.
BATHO, WILLIAM FOTHERGILL	1062	14th April 1862	Improvements in angle iron applicable to metallic bedsteads, roofs, bridges and other similar purposes.
BATMAN, GEORGE HENRY -	641	10th March 1862	Steam-engines.
BATSON, JAMES - - - -	52	8th Jan. 1862	Improvements in the manufacture of gun barrels and wrought iron tubing.
BATTINSON, GEORGE - - -	1685	4th June 1862	Machinery for combing wool and other fibres.
BATTINSON, ISAAC - - -	1685	4th June 1862	Machinery for combing wool and other fibres.

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Bea]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAUD, VICTOR PIERRE CELES- [TIN.]	3032	10th Nov. 1862	Treatment of maize or Indian corn preparatory to grinding the same into flour. (Patented by William Edward Newton.)
BAUD, VICTOR PIERRE CELES- [TIN.]	3289	8th Dec. 1862	Preserving animal substances. (Patented by William Edward Newton.)
BAUDET, PAUL - - -	2697	6th Oct. 1862	Improvements in articles of clothing. (Patented by William Clark.)
BAUDOUIN, ACHILLE - -	2108	24th July 1862	Machinery for the manufacture of fishing and other nets. (Patented by William Clark.)
BAUDOUIN, FELIX MARIE -	1354	6th May 1862	Cylinder printing apparatus. (Patented by William Clark.)
BAUDOUIN, FELIX MARIE -	2108	24th July 1862	Machinery for the manufacture of fishing and other nets. (Patented by William Clark.)
BAUDOUIN, THÉOPHILE DENIS [GUSTAVE.]	964	4th April 1862	An improved case for holding balls and reels of cotton, silk and other threads. (Patented by Richard Archibald Brooman.)
BAUM, HUGO - - - -	2636	29th Sept. 1862	Manufacture of moreens and such like fabrics.
BAYLEY, ABRAHAM - - -	1865	25th June 1862	Lamps.
BAYLEY, HENRY - - -	1423	12th May 1862	Improvements in machinery for turning, boring, cutting, shaping and reducing wood and other substances, applicable for the manufacture of various articles.
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BAYLISS, WILLIAM - - -	1854	24th June 1862	An improved strainer for straining and tightening wire for fencing and other purposes.
BAYNES, HENRY - - -	680	11th March 1862	An improvement in bankers' cheque books.
BAZIN, EMANUEL - - -	1817	20th June 1862	Improvements in the manufacture of candlesticks and in machinery or apparatus used in such manufacture. (Patented by William Edward Gedge.)
BAZIN, ERNEST - - -	2070	21st July 1862	An improved electric railway carriage signal.
BAZIN, EUGENE - - -	1817	20th June 1862	Improvements in the manufacture of candlesticks and in machinery or apparatus used in such manufacture. (Patented by William Edward Gedge.)
BAZIN, LOUIS JULES - -	2296	15th Aug. 1862	An improved apparatus for the production of sealing wax impressions. (Patented by Marc Antoine François Mennons.)
BEALE, DAVID - - - -	49	8th Jan. 1862	An improved method of fastening iron plates to ships' sides.
BEALE, JOHN - - - -	2712	7th Oct. 1862	Preparation or manufacture of manure.
BEALE, MARY ANN - - -	2712	7th Oct. 1862	Preparation or manufacture of manure.
BEANES, EDWARD - - -	471	22nd Feb. 1862	Manufacture of sugar. (Patented by William Henry Ross.)
BEARD, JOHN - - - -	1066	14th April 1862	An improvement or improvements in sofa beds or sofa bedsteads.
BEARD, JOHN - - - -	2003	12th July 1862	Certain improvements in carding-engines.
BEARDMORE, WILLIAM - -	992	8th April 1862	Steam rams for naval purposes.
BEARDS, THOMAS - - -	2699	6th Oct. 1862	Machinery for cultivating land.
BEARDSLEY, LEVI - - -	475	22nd Feb. 1862	Apparatus for elevating hay, straw and earth. (Patented by George Tomlinson Bougfield.)

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BEARNE, ANDREW - - -	1377	8th May 1862	Construction of boots, shoes and goloshes, rendering them elastic to pressure.
BRATSON, WILLIAM - - -	2285	14th Aug. 1862	Manufacture of stoves.
BEAUDET, LOUIS ANTOINE -	3211	29th Nov. 1862	Manufacture of leather. (Patented by Michael Henry.)
BEAUMONT, ANDRÉ ALEXAN- [DRE.	754	18th March 1862	A new kind of flying top.
BEAUMONT, WALTER - - -	821	25th March 1862	Sights for rifles.
BECK, RICHARD - - -	3101	18th Nov. 1862	Improvements in reading-glasses and magnifiers to be simultaneously used with both eyes.
BECKER, WILLIAM - - -	280	1st Feb. 1862	Improvements in locks or fastenings for bags, portemonnaies and other like articles having metal frames.
BECKETT, ARTHUR MARTIN A', [F.R.C.S.	674	12th March 1862	Railway signal apparatus.
BECKETT, SAMUEL - - -	1432	13th May 1862	Improvements in machinery or apparatus for manufacturing spindles, part of which apparatus is also applicable to grinding and polishing other articles.
BECKLEY, DAVID - - -	33	4th Jan. 1862	An improvement or improvements in breaks for retarding and stopping carriages on railways.
BECKS, ARTHUR THOMAS -	3241	3rd Dec. 1862	Machinery for cutting or shearing sheets or plates of metal.
BECOURT, ALFRED JOSEPH [GUSTAVE.	2123	26th July 1862	Improvements in obtaining or extracting silver from ores and other bodies, and in apparatus for the same. (Patented by William Clark.)
BEDBOROUGH, ALFRED - - -	579	3rd March 1862	Improvements in pillar letter-boxes and letter-bags.
BEDDELLS, CALEB - - -	2173	31st July 1862	Manufacture of braces.
BEDFORD, JOHN - - -	1818	20th June 1862	Improvements in the irons and cutters of planes, and in the method of manufacturing the same. (Communicated by Mr. Joseph Schell.)
BEDSON, GEORGE - - -	241	29th Jan. 1862	Wire fences.
BEDSON, GEORGE - - -	1085	15th April 1862	Improvements in the manufacture of wire ropes and in the preparation of wire for such manufacture,
BEDSON, GEORGE - - -	1935	2nd July 1862	Rolling wire and other rods or bars of metal.
BEDSON, GEORGE - - -	2520	12th Sept. 1862	Rolling wire and other rods or bars of metal.
BEER, ALFRED JAMES - - -	167	22nd Jan. 1862	Improvements in the valves of steam and other motive engines.
BEGG, WILLIAM - - -	972	5th April 1862	Improvements in consuming smoke and in furnace bars and bridges for effecting the same.
BELDING, GEORGE WASHING- [TON.	1200	24th April 1862	Harrows or cultivators. (Communicated by Willis Churchill).
BELDING, GEORGE WASHING- [TON.	1899	28th June 1862	An improved flexible spring cloth or fabric especially adapted for the manufacture of ladies' skirts.
BELDING, GEORGE WASHING- [TON.	2474	8th Sept. 1862	Wringing-machines (Communicated by Arthur Silbert Denny.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BELHOMME FRANÇOIS CYRILLE	2840	21st Oct. 1862	Hats, caps, bonnets and other coverings for the head.
BELL, CHARLES - - -	2657	1st Oct. 1862	A power conserver brake for utilizing the power expended in stopping or retarding machinery, locomotive or other engines, and vehicles of any description when in motion. (Patented by Peter Gerhard Vander Byl.)
BELL, JAMES - - -	1694	5th June 1862	Fastenings for railway chairs.
BELL, ROBERT - - -	414	15th Feb. 1862	Improvements in treating fabrics or articles composed of animal and vegetable substances for the purpose of separating one class from another.
BELL, ROBERT - - -	2099	23rd July 1862	Manufacture of bricks. (Communicated by Joseph Mamelin.)
BELL, SAMUEL ALEXANDER -	2811	16th Aug. 1862	Improved apparatus for dipping lucifer matches.
BELL, THOMAS - - -	574	3rd March 1862	Apparatus for distilling shale and other bituminous minerals.
BELLHOUSE, EDWARD TAYLOR	318	6th Feb. 1862	Improvements in the construction of hydrostatic presses suitable for packing and compressing cotton and other materials.
BELLOCHE, FRANÇOIS SÉBAS- [TIEN.	26	3rd Jan. 1862	An improved parasol.
BELOU, JACQUES - - -	218	28th Jan. 1862	Improvements in engines actuated by heated air, or by combinations of air and steam. (Patented by Marc Antoine François Menons.)
BELSHAW, JONATHAN - -	91	13th Jan. 1862	An improved knocker to be attached to doors, shutters or other parts of premises to which the same may be applicable, and applicable also for the reception of letters and other documents.
BENDER, CHARLES - - -	2555	17th Sept. 1862	Gas burners. (Patented by John Henry Johnson.)
BENNET, GEORGE - - -	704	14th March 1862	An improvement in the coating and covering of wrought iron for the purpose of preserving it and preventing oxidation.
BENNETT, HENRY - - -	2527	13th Sept. 1862	Machinery or apparatus for the rolling of wire rods.
BENNETT, JAMES HENRY -	522	26th Feb. 1862	Improvements in steam generators and in engines to be worked by atmospheric pressure or steam and air combined.
BENNETT, THOMAS HARPER -	1080	15th April 1862	Improvements in the manufacture of hats, caps or other coverings for the head.
BENNETT, WILLIAM JOHN -	643	10th March 1862	An improved solution or preparation to be used with Portland and other cements for the production of artificial stone or for building purposes.
BENNETTS, WILLIAM - - -	1288	1st May 1862	Improvements in the method of and apparatus for preventing the injurious effects occasioned by smoke, sulphur, and the deleterious gases which escape from stacks, chimneys, calcining houses, chemical and other furnaces.
BENSA, FRANCIS - - -	665	12th March 1862	Improvements in the arrangement of the electric conductors for submarine telegraphs. (Patented by Alexander James Russell.)

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BENTLEY, JOHN - - -	2812	18th Oct. 1862	Apparatus for forming and pressing felt hats.
BENTON MARSHALL FRANK- [LIN.]	3297	9th Dec. 1862	Manufacture of gunpowder. (Communicated by Samuel Ricker.)
BENYON, JOHN - - -	2163	30th July 1862	Certain improvements in looms for weaving.
BERARD, ARISTIDE BAL- [THAZAR.]	966	4th April 1862	Improvements in the manufacture of iron and steel. (Patented by William Edward Newton.)
BÉRENDORF, JOSEPH FRANÇOIS	3294	8th Dec. 1862	Construction of steam generators. (Patented by John Henry Johnson.)
BERG, ANTON - - -	1668	2nd June 1862	An improved fastening for bags, purses and other similar articles. (Patented by John James Henry Gebhardt.)
BERG, JAMES JOHN VAN DEN	422	17th Feb. 1862	A new fire-lighter.
BERGENDAL, FILIP - - -	2208	6th Aug. 1862	Construction of armour plates for ships and forts, and applicable to other like purposes. (Patented by John Henry Johnson.)
BERGUE, CHARLES DE - -	1556	23rd May 1862	Improvements in machinery or apparatus for the manufacture of metal reeds for weaving.
BERGUE, CHARLES DE - -	1567	26th May 1862	Improvements in iron framing applicable to supporting coverings or surfaces intended to resist blows or pressure.
BERGUE, CHARLES DE - -	2780	15th Oct. 1862	Apparatus for the crushing and treatment of ores.
BERGUE, CHARLES DE - -	2781	15th Oct. 1862	Permanent way of railways.
BERGUE, CHARLES DE - -	3143	22nd Nov. 1862	Machinery or apparatus for the manufacture of metal reeds for weaving.
BERLET, EMILE - - -	2770	14th Oct. 1862	Apparatus for carburizing gas. (Patented by Richard Archibald Brooman.)
BERLY, JACQUES HENRY [CHARLES DE.]	1172	22nd April 1862	Apparatus for propelling and manœuvring ships. (Patented by John Henry Johnson.)
BERMINGHAM, JOHN - - -	1762	13th June 1862	Improvements in the construction of vessels of war, parts of which improvements are also applicable to the construction of vessels for commercial and other purposes.
BERNARD - - - -	2808	17th Oct. 1862	Prevention or removal of incrustation in or from steam generators. (Patented by John Henry Johnson.)
BERRISFORD, SAMUEL - - -	3028	10th Nov. 1862	Certain improvements in looms for weaving.
BERRY, GEORGE - - -	2791	16th Oct. 1862	Locks.
BERVILLE, CHARLES VICTOR [FOURNIER DE.]	1359	7th May 1862	An improved safety coupling bar for locomotives and other railway carriages.
BESGE, EUGÈNE - - -	2918	29th Oct. 1862	Looms for weaving. (Patented by William Edward Gedge.)
BESLAY, CHARLES - - -	1896	28th June 1862	Improvements in galvanizing or coating metals by electro-chemical agency, and in apparatus connected therewith.
BESLAY, CHARLES - - -	3480	30th Dec. 1862	Steam-engines.
BESSEMER, HENRY - - -	56	8th Jan. 1862	Improvements in the machinery and apparatus employed in the manufacture of malleable iron and steel.
BESTWICK, WILLIAM - - -	3346	15th Dec. 1862	Braiding-machines.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BETHUNE, DONALD - -	2214	7th Aug. 1862	Improvements in ships and vessels in order to prevent injury from collisions. (Patented by Richard Archibald Brooman.)
BETHUNE, DONALD - -	2215	7th Aug. 1862	Improvements in covering ships and vessels built of wood, or iron ships with a backing of wood, before placing iron, steel, or other armour plates on such ships and vessels. (Patented by Richard Archibald Brooman.)
BETJEMANN, GEORGE - -	40	6th Jan. 1862	Improvements in dressing cases, applicable to other cases and boxes.
BETJEMANN, GEORGE WILLIAM	40	6th Jan. 1862	Improvements in dressing cases, applicable to other cases and boxes.
BETJEMANN, JOHN - -	40	6th Jan. 1862	Improvements in dressing cases, applicable to other cases and boxes.
BETTELEY, JOSEPH - -	97	13th Jan. 1862	Ship building.
BETTELEY, JOSEPH - -	1646	31st May 1862	Improvements in ship building, and in rendering ships shot proof.
BEZARD, PIERRE FRANÇOIS [JEAN BAPTISTE.]	3270	6th Dec. 1862	Improvements in the manufacture of stockings and socks. (Patented by Henri Adrien Bonneville.)
BIBET, JEAN MARIE - -	3439	24th Dec. 1862	Improvements in the means of applying heat to the feet in boots, shoes and otherwise, part of which improvements is applicable to other heating purposes. (Patented by William Clark.)
BIDDELL, GEORGE ARTHUR -	2181	1st Aug. 1862	Railway crossings.
BIDDLE, EDWARD JOHN -	1989	10th July 1862	The use of petroleum or coal oil as fuel, and also for the machinery and apparatus to be employed for this purpose.
BIDDLE, EDWARD JOHN -	3465	29th Dec. 1862	The use of petroleum or coal oil as fuel, and also for the machinery and apparatus to be employed for this purpose. (Patented by Frederick Tolhausen.)
BIDDLE, GEORGE - - -	2388	28th Aug. 1862	Manufacture of brooms.
BIERS, JOHN, junior - -	1673	3rd June 1862	Improvements in shoes for horses and other animals.
BIGGS, JOHN - - - -	3257	4th Dec. 1862	Manufacture of warp fabrics.
BILLING, FREDERICK WILLIAM	2997	5th Nov. 1862	A new process of obtaining printing surfaces, dies, and substitutes for photographic negatives. (Patented by Alfred Vincent Newton.)
BILLINGHURST, WILLIAM -	3469	29th Dec. 1862	An improved portable battery.
BILLUPS, JONATHAN EDWIN -	2683	4th Oct. 1862	Fixed points for railways.
BINKS, CHRISTOPHER - -	153	21st Jan. 1862	Improvements in generating steam, in superheating steam, and in apparatuses employed therein.
BINKS, CHRISTOPHER - -	1332	5th May 1862	Improved methods of obtaining hydrogen gas, and certain gaseous compounds of hydrogen and of carbon.
BINKS, CHRISTOPHER - -	1493	16th May 1862	Improved methods of and apparatus for treating linseed and other oils and fats.
BINKS, CHRISTOPHER - -	1496	17th May 1862	Improved methods of obtaining oxygen and chlorine gases.
BINKS, CHRISTOPHER - -	3072	15th Nov. 1862	Improved methods of and apparatus for treating linseed and other oils and fats.

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BINKS, CHRISTOPHER - -	3085	17th Nov. 1862	Improved methods of obtaining oxygen and chlorine gases.
BIRCH, JAMES - - -	2933	30th Oct. 1862	Improved apparatus for unstopping or clearing from obstructions drains, water closets, stack, water and other pipes.
BIRD, JOSEPH - - -	146	20th Jan. 1862	An improved crank axle applicable to cranks of any description whatsoever wherein the wear is mainly on one side thereof.
BIRD, JOSIAH NEWELL - -	2186	1st Aug. 1862	Improvements in projectiles for ordnance and small arms, and in the wads or sabôts to be used therewith. (Patented by William Edward Newton.)
BIRDSALL, JAMES - - -	424	17th Feb. 1862	Preparing hides or skins for tanning.
BIRDSALL, THOMAS - - -	424	17th Feb. 1862	Preparing hides or skins for tanning.
BIRKBECK, GEORGE HENRY -	703	14th March 1862	Improvements in trusses or bandages, and in pessaries to be used therewith when required. (Communicated by M. Louis Polydore Grandcollet.)
BIRKBECK, GEORGE HENRY -	860	27th March 1862	Improvements in the means of producing imitation mosaics. (Communicated by Charles Auguste Le Bourg.)
BIRKBECK, GEORGE HENRY -	1179	23rd April 1862	Lubricating-apparatus. (Communicated by M. Leon Amenc.)
BIRKBECK, GEORGE HENRY -	1276	30th April 1862	Improvements in the construction of couches or settees for the purpose of sitting, lying, or reclining upon. (Communicated by Mr. Charles Henry Ferdinand Leroux.)
BIRKBECK, GEORGE HENRY -	1469	15th May 1862	Apparatus for consuming smoke. (Communicated by M. Etienne Deshurand and Madame Anais Lemercier.)
BIRKBECK, GEORGE HENRY -	1780	16th June 1862	Construction of presses for extracting liquids from various substances. (Communicated by Jean Joseph Requier and Eugène Genestal.)
BIRKBECK, GEORGE HENRY -	1919	1st July 1862	Improvements in processes for the utilization of certain refuse products resulting from the manufacture of iron, such processes being applicable to the treatment of other metallic or mineral substances. (Communicated by Emmanuel Minary and Raymond Soudry.)
BIRKBECK, GEORGE HENRY -	1938	3rd July 1862	Construction of mechanical horses. (Communicated by Mr. De Hamel.)
BIRKBECK, GEORGE HENRY -	2164	30th July 1862	Improvements in the means or processes employed for preserving timber from decay or destruction. (Communicated by George Hwitz.)
BIRKBECK, GEORGE HENRY -	3432	24th Dec. 1862	Instruments for surveying and levelling. (Communicated by Monsieur Germain Auguste Leroyer.)
BISCHOF, GUSTAV, JR. - -	581	3rd March 1862	Improvements in treating ores and solutions containing copper and iron or either of them, to obtain products therefrom.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BISCHOF, GUSTAV, JR. - -	1235	26th April 1862	Improvements in treating solutions containing copper and silver or either of them, to obtain metallic copper and silver.
BISSET, JOHN - - -	1402	10th May 1862	Breech-loading fire-arms. (Patented by John Frederick Milward.)
BLACK, ALEXANDER - -	1025	10th April 1862	Improvements in swing-bridges adapted for crossing lines of railways and other ways.
BLACK, WILLIAM - - -	1315	3rd May 1862	Lottery and ballot-boxes.
BLACKBURN, BEWICKE - -	930	2nd April 1862	Apparatus for lubricating locomotive and other axles.
BLACKBURN, THOMAS - -	3199	29th Nov. 1862	Looms for weaving.
BLACKLIDGE, ROBERT - -	1555	23rd May 1862	Improvements in the preparation of materials for sizing, dressing or finishing warps, yarns, textile fabrics or paper, and also for thickening colours.
BLACKMORE, WILLIAM - -	1608	23th May 1862	Improvements in burning limestone and generating steam.
BLACKWELL, THOMAS EVANS	3264	5th Dec. 1862	Barometers or instruments for measuring altitudes or the pressure of the atmosphere or elastic fluids.
BLAIR, ANDREW - - -	622	8th March 1862	Rotatory engines.
BLAIR, JOHN - - -	1861	25th June 1862	Manufacture of wadding.
BLAIR, THOMAS - - -	490	24th Feb. 1862	Improvements in machinery or apparatus for cutting, chopping and breaking refined lump sugar and other substances.
BLAISE, LOUIS - - -	2689	4th Oct. 1862	Improvements in skates and in the method of securing or fastening the same.
BLAKE, GIDEON - - -	1439	13th May 1862	Apparatus for warming apartments.
BLAKELY, ALEXANDER THEO- [PHILUS.	3404	20th Dec. 1862	Breech-loading ordnance.
BLAKEY, GEORGE - - -	480	22nd Feb. 1862	Leggings or gaiters.
BLAKEY, JOHN - - -	480	22nd Feb. 1862	Leggings or gaiters.
BLAKEY, SAMUEL - - -	480	22nd Feb. 1862	Leggings or gaiters.
BLANC, ADOLPHE - - -	1049	11th April 1862	Improvements in the manufacture of leathern accoutrements. (Patented by William Clark.)
BLANC, MARIUS - - -	597	5th March 1862	Certain improvements in the manufacture of boots and shoes.
BLANCHARD, ALONZO VIRGIL	1664	2nd June 1862	An improved mode of making the handles of shovels, spades, dung forks and other analogous articles. (Patented by William Edward Newton.)
BLANCHARD, FRANKLIN - -	1664	2nd June 1862	An improved mode of making the handles of shovels, spades, dung forks and other analogous articles. (Patented by William Edward Newton.)
BLANCHARD, JOHN DICKINSON	1664	2nd June 1862	An improved mode of making the handles of shovels, spades, dung forks and other analogous articles. (Patented by William Edward Newton.)
BLANCO Y RAMIS, ANTONIO -	2267	14th Aug. 1862	Apparatus for cleaning the bottoms of ships and vessels. (Patented by Don Pelegrin Marques.)
BLAND, HENRY - - -	1737	11th June 1862	Sewing-machines.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BLAND, JAMES FOX - -	1898	9th May 1862	An improved method of and apparatus for signalling between targets and shooters.
BLATSPIEL, FREDERICK [ERNEST.]	2687	4th Oct. 1862	Improvements in diving apparatus, and apparatus to be used for working in deep water. (Communicated by Richard Alexander Kobitzsch.)
BLAYLOCK, JOHN - - -	3111	19th Nov. 1862	Machinery for printing, numbering and dating railway and other tickets.
BLEASDALE, JOSEPH - -	453	20th Feb. 1862	Improvements in fluted rollers for preparing and spinning fibrous materials, and in the mode of manufacturing the same.
BLISS, EDWIN - - -	504	25th Feb. 1862	Improved means for viewing microscopic photographs and other minute objects.
BLISS, WILLIAM - - -	2001	11th July 1862	Improvements in heating ores and in generating steam, and also in the apparatus employed therein. (Communicated by David Wilkinson.)
BLOCKEY, JOHN SANDERS -	2295	14th Aug. 1862	Manufacture of colouring matters.
BLUMBERG, GEORGE FREDERICK	3230	2nd Dec. 1862	An improved method of and apparatus for producing designs in or on glass.
BOALER, WILLIAM - - -	144	20th Jan. 1862	Certain improvements in the method of sizing paper, yarns and woven fabrics, and in machinery or apparatus connected therewith. (Communicated by John Adams Rhodes.)
BOAZ, WILLIAM - - -	2352	22nd Aug. 1862	Apparatus for propelling ships and other vessels.
BOBY, ROBERT - - -	836	26th March 1862	Hay-making machines.
BOBY, ROBERT - - -	1174	22nd April 1862	Improvements in the construction of apparatus for rolling or crushing land.
BODDEN, WILLIAM - - -	1293	2nd May 1862	Improvements in certain parts of machinery for slubbing and roving cotton and other fibrous substances.
BODMER, LOUIS RUDOLPH -	344	10th Feb. 1862	Hydraulic oil presses.
BODMER, LOUIS RUDOLPH -	2038	16th July 1862	Apparatus for winding up watches and other time-keepers. (Communicated by Auguste Rossel.)
BODMER, RUDOLPH - - -	228	28th Jan. 1862	Improvements in the process of manufacturing artificial stones, parts of which improvements are also applicable to the manufacture of artificial fuel.
BOECKE, FRANZ - - -	3190	28th Nov. 1862	Improvements in sewing or uniting fabrics, and in the machinery or apparatus employed therein.
BOETIUS, HENNING - - -	1613	29th May 1862	A new mode of cooling (refrigerating) hot liquids and condensing steam.
BOETIUS, HENNING - - -	2318	18th Aug. 1862	Fireproof materials.
BOISSEROLLE, ALEXANDRE [JOSEPH AURELE HENRY DE.]	262	31st Jan. 1862	Certain improvements in treating fatty and oily matters for obtaining their acidification, and in the apparatus employed therein.
BOISSET, PIERRE - - -	1612	29th May 1862	Manufacture of boots and shoes.
BOLAND, OVIDE ISIDORE -	909	1st April 1862	Kneading-machines. (Patented by William Clark.)
BOLLACK, HERMANN - - -	26	3rd Jan. 1862	An improved parasol.
BOLLÉE, ERNEST - - -	1056	12th April 1862	A new hydraulic ram.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOLLINGER, HENRY - -	2128	28th July 1862	Improvements in machines employed in ship-building, part of which are also applicable to other purposes.
BOLTON, EDWARD - - -	698	13th March 1862	Improved apparatus for transferring liquid matters from one vessel to another.
BOLTON, FRANCIS JOHN -	362	11th Feb. 1862	Improvements in rifle and gun stoppers, and oil bottles.
BOLTON, FRANCIS JOHN -	1398	9th May 1862	Improvements in telegraphing for naval and military and other purposes, and in the apparatus connected therewith.
BOLTON, FRANCIS JOHN -	1399	9th May 1862	An improved mode of and apparatus for displaying the lights in lighthouses.
BOMBLIN, JOSEPH - - -	2246	11th Aug. 1862	Construction of ladders. (Patented by William Edward Gedge.)
BOND, JOHN - - - -	1194	24th April 1862	Certain improvements in projectiles, which improvements are applicable to horns attached to vessels for war purposes.
BONELL, CORNELIUS - -	352	11th Feb. 1862	A new or improved rotary engine.
BONELLI, GAETANO - -	58	8th Jan. 1862	An improved mode of and apparatus for transmitting despatches and small articles by the agency of electricity. (Patented by Henry Cook.)
BONNARD, JULES - - -	3059	13th Nov. 1862	An improved machine working by compression and expansion of air. (Patented by William Edward Gedge.)
BONNE, JOSEPH ALEXANDRE [MARCEL.]	910	1st April 1862	An improved furnace for treating iron ore. (Patented by Michael Henry.)
BONNELL, ANN - - - -	1987	10th July 1862	Churns. (Communicated by William Bonnell.)
BONNELL, WILLIAM - -	1987	10th July 1862	Churns. (Patented by Ann Bonnell.)
BONNET, FRANÇOIS - -	2130	28th July 1862	Preparation of a red colouring matter. (Patented by William Spence.)
BONNET, FRANÇOIS - -	2132	28th July 1862	Preparation of a blue colouring matter. (Patented by William Spence.)
BONNETERRE, SÉVERIN VIR- [GILE.]	690	13th March 1862	An improved apparatus for regulating the pressure of steam in steam-boilers and the combustion in their furnaces.
BONNEVILLE, HENRI ADRIEN	3270	6th Dec. 1862	Improvements in the manufacture of stockings and socks. (Communicated by Pierre François Jean Baptist Bezaré.)
BONNEVILLE, HENRI ADRIEN	3473	30th Dec. 1862	Manufacture of saddles. (Communicated by Laurent Cogent.)
BOOCOCK, JOHN - - - -	515	26th Feb. 1862	Improvements in machinery for preparing, spinning and doubling cotton and other fibrous materials.
BOOLDS, CORNELIUS - -	569	1st March 1862	Fastenings for gloves.
BOOTH, EDWARD - - - -	3169	26th Nov. 1862	Certain improvements in looms for weaving.
BOOTH, JOHN PETER - -	1959	7th July 1862	Manufacture of feather beds, quilts, bolsters and pillows.
BOOTH, JOSEPH - - - -	3037	11th Nov. 1862	Rotary engines.
BOOTH, MAJOR - - - -	1375	8th May 1862	Improvements in apparatus or machinery for damping and steaming fabrics, part of which improvements are applicable for distributing fluids for other purposes.
BOOTH, THOMAS - - - -	3037	11th Nov. 1862	Rotary engines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOOTH, WILLIAM - - -	3037	11th Nov. 1862	Rotary engines.
BOOTHMAN, JAMES - -	837	26th March 1862	Improvements in beehives and apparatus connected therewith.
BORDONE, JOSEPH PHILIPPE [TOUSSAINT.	2397	29th Aug. 1862	Construction of furnaces. (Patented by William Smith.)
BORLAND, FREDERICK WIL- [LIAM.	453	20th Feb. 1862	Improvements in fluted rollers for preparing and spinning fibrous materials, and in the mode of manufacturing the same.
BORNEMANN, AUGUSTUS -	473	22nd Feb. 1862	Improvements in the mode of constructing fountains.
BORROWS, EDWARD - -	3276	6th Dec. 1862	Propellers for ships and other navigable vessels.
BORTHWICK, GEORGE - -	1346	6th May 1862	Certain improvements in the construction of ships, boats and rafts.
BOSSARD, PETER JOHN - -	2443	3rd Sept. 1862	Improvements in stoppers for bottles, jars, guns, tubes and other open-mouthed articles, in taps, and in fixing them in casks and other vessels. (Communicated by Louis Alexandre Farjon.)
BOSTOCK, THOMAS - -	600	5th March 1862	The manufacture of boots and shoes.
BOTTOMLEY, GEORGE - -	2350	22nd Aug. 1862	Improved apparatus for expressing moisture from pulpy or solid substances.
BOTTOMLEY, JAMES - -	2914	29th Oct. 1862	Looms for weaving.
BOTTOMLEY, REUBEN - -	3481	31st Dec. 1862	Machinery for twisting and doubling yarns or threads of cotton and other fibrous materials.
BOTTOMLEY, WILLIAM - -	2914	29th Oct. 1862	Looms for weaving.
BOTTOMLEY, WILLIAM - -	3124	20th Nov. 1862	Machinery for stiffening woollen and other fabrics.
BOUBÉE, ADOLPHE - -	2339	21st Aug. 1862	Improved apparatus for casting or moulding glass and imitating precious stones or marbles.
BOUBÉE, ADOLPHE - -	2340	21st Aug. 1862	An improved veil protector.
BOUCH, THOMAS - - -	2747	11th Oct. 1862	Machinery or apparatus for charging or filling cartridges.
BOUCH, WILLIAM - - -	1773	14th June 1862	Cranes.
BOUCHER, JOHN - - -	872	29th March 1862	Improvements in rifled ordnance and fire-arms, and in the projectiles to be used therewith.
BOUCHER, SIMON - - -	2323	19th Aug. 1862	Improvements in flax spinning, which improvements are also applicable to spinning of tow and hemp.
BOULANGER, VICTOR - -	265	3rd Feb. 1862	An improved axletree. (Patented by Charles Stevens.)
BOUQUET, HENRI - - -	3446	24th Dec. 1862	Apparatus for stamping or marking paper and other materials. (Patented by John Henry Johnson.)
BOURDON, EUGÈNE - -	1358	7th May 1862	Improvements in the construction of blowing fans, which improvements are also applicable to centrifugal pumps for raising water and other liquids or gases, or for exhausting the same.
BOURG, CHARLES AUGUSTE LE	860	27th March 1862	Improvements in the means of producing imitation mosaics. (Patented by George Henry Birkbeck.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOURKE, JOSEPH - - -	1988	8th July 1862	Military accoutrements.
BOURNE, PETER - - -	3213	1st Dec. 1862	Miners' lamps.
BOURQUIN, JOHN PETER -	2882	25th Oct. 1862	An improved manufacture of mount for photographic and other albums, miniatures and other pictures.
BOUSFIELD, EDWARD TENNEY	15	1st Jan. 1862	Improved apparatus applicable to steam cultivation.
BOUSFIELD, EDWARD TENNEY	1052	11th April 1862	Improved apparatus applicable to steam cultivation.
BOUSFIELD, GEORGE TOMLIN- [SON.]	36	4th Jan. 1862	Certain new and useful improvements in machinery for propelling water craft. (Communicated by Edward Sabine Renwick.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	156	21st Jan. 1862	Improvements in machinery for making nails and spikes. (Communicated by Carl Gustaf Gustafsgon.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	447	19th Feb. 1862	Improved modes of protecting iron boilers, tanks and vats from wear arising from galvanic action. (Communicated by John Welton Wilcox.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	475	22nd Feb. 1862	Apparatus for elevating hay, straw and earth. (Communicated by Levi Beardsley.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	707	14th March 1862	Improvements in machinery for digging and disintegrating the earth for agricultural purposes. (Communicated by Elias Howe, jr.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	738	17th March 1862	Improvements in cranks for driving sewing-machines and other machinery. (Communicated by Turner Williams.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	1124	17th April 1862	Sewing-machines. (Communicated by William Grover.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	1186	23rd April 1862	Improvements in the construction of elliptic springs for wheel carriages and other purposes. (Communicated by Jabez Marshall Woodward.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	1369	7th May 1862	Improvements in applying steam power to tilling land by means of a digging locomotive. (Communicated by Elias Howe, jr.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	1839	21st June 1862	Certain new and useful improvements in steam-engine valves. (Communicated by John Baird.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	1978	9th July 1862	Washing-machines. (Communicated by Joseph Short.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2174	31st July 1862	Manufacture of fluids suitable for burning in lamps and for other uses. (Communicated by Charles Tyler.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2236	9th Aug. 1862	Improvements in apparatus to be used in the manufacture of hat bodies. (Communicated by James Seeley Taylor.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2492	10th Sept. 1862	Machinery used in the manufacture of files. (Communicated by William Picket Pierce.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2494	10th Sept. 1862	Machinery for cutting files. (Communicated by William Picket Pierce.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOUSFIELD, GEORGE TOMLIN- [SON.	2807	17th Oct. 1862	Manufacture of iron and steel. (Communicated by Goran Fredrik Goransson.)
BOUSFIELD, GEORGE TOMLIN- [SON.	2836	21st Oct. 1862	Manufacture of boots and shoes. (Communicated by Daniel Edwin Hayward.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3233	2nd Dec. 1862	Forming the permanent ways of railways. (Communicated by Eugene Smits.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3234	2nd Dec. 1862	Apparatus for discharging guns or ordnance. (Communicated by Daniel Treadwell.)
BOUTEILLE, MICHEL - -	1772	14th June 1862	Jacquard machines. (Patented by John Henry Johnson.)
BOUTON, JOSEPH - - -	2157	30th July 1862	Machinery for dressing and shaping stone. (Patented by Ferdinand Charles Warlick.)
BOUTTEVILLE, FRANÇOIS DE- [LAMERE DE, JR.	231	29th Jan. 1862	Improvements in machinery applicable to the spinning of fibrous substances.
BOUVET, JEAN - - -	2569	19th Sept. 1862	An improved mode of closing or sealing tin preserve boxes.
BOVILL, WILLIAM EDWARD -	2452	5th Sept. 1862	Mode of applying oil and other fluid lubricating matters to machinery. (Communicated by Louis Edouard Auguste Gobert.)
BOWDITCH, WILLIAM REN- [WICK.	2937	31st Oct. 1862	Improvements in carburetting or naphthalizing gas, and in the apparatus employed therein.
BOWEN, HENRY - - -	571	1st March 1862	Gas meters.
BOWER, GEORGE - - -	940	3rd April 1862	Certain improvements in metallic pistons.
BOWER, JOHN - - -	2264	12th Aug. 1862	Railway sleepers.
BOWER, JOHN - - -	2515	12th Sept. 1862	Railway sleepers.
BOWSER, HOWARD - - -	3475	30th Dec. 1862	Coating or protecting iron or steel with another metal.
BOWSER, WILLIAM - - -	732	17th March 1862	Improvements in ships' fire hearths or boiling and cooking apparatus.
BOWSER, WILLIAM - - -	3475	30th Dec. 1862	Coating or protecting iron or steel with another metal.
BOYD, AMOS HANES - - -	2051	18th July 1862	A new ornamental fabric and the machinery for producing the same. (Patented by Joseph Willcock.)
BOYD, ROBERT ANDREW -	1441	13th May 1862	Improvements in the manufacture of bacon.
BOYER, PIERRE HENRI - -	558	1st March 1862	Manufacture of boots and shoes.
BOYLE, ARTHUR - - -	1233	26th April 1862	New or improved machinery for manufacturing hair pins and cottar pins, a part of which machinery may also be used for cutting off and pointing wires for various purposes.
BOYLE, ARTHUR - - -	2147	29th July 1862	Improvements in the manufacture of the ribs and stretchers of umbrellas and parasols, and in machinery to be employed in the said manufacture.
BOYLE, WILLIAM LAFFERTY -	2271	13th Aug. 1862	Improvements in the construction of chairs and foot stools for the use of dentists, and in chairs, couches and beds for invalids.
BRADBURY, JOHN - - -	7	1st Jan. 1862	Self-acting mules.
BRADBURY, JOHN - - -	2694	6th Oct. 1862	Certain improvements in carding-engines.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BRADBURY, WILLIAM - -	2694	6th Oct. 1862	Certain improvements in carding-engines.
BRADDOCK, JAMES - - -	3252	4th Dec. 1862	Certain improvements in machinery or apparatus for effecting the separation of impurities from the water employed in steam-boilers and also for effecting the circulation of the said water.
BRADFORD, THOMAS - -	554	1st March 1862	Improvements in washing-machines for cleansing domestic garments, fibrous materials, and for manufacturing purposes.
BRADFORD, THOMAS - -	3047	12th Nov. 1862	An improved clothes wringer and mangle applicable to pressing the liquid from clothes in the process of washing and other pressing purposes.
BRADLEY, CALEB HANNUM -	309	5th Feb. 1862	An improvement in fire-arms. (Patented by Alfred Vincent Newton.)
BRADSHAW, WILLIAM, JR. -	57	8th Jan. 1862	Watches.
BRAINERD, JEHU - - -	2985	30th Oct. 1862	Horse shoe machines. (Patented by George Haseltine.)
BRAISTED, THOMAS - -	3	1st Jan. 1862	Improvements in hose pipe joints or couplings. (Patented by John Henry Johnson.)
BRAKELL, CHRISTOPHER -	1568	26th May 1862	Steam and other motive engines.
BRAME, JOHN ANDREW DE -	853	27th March 1862	Improvements in machinery for preparing, combing and dressing vegetable fibres. (Patented by Richard Archibald Brooman.)
BRANT, JOHN CHARLES -	1460	14th May 1862	Improvements in the construction of armour plated ships, and in cements or compositions for uniting iron to iron and for uniting other substances, which compositions may also be used for caulking and for coating ships' bottoms.
BRASSETT, PAULINE - -	3228	2nd Dec. 1862	Apparatus for saving life and property in cases of fire or burglary.
BRASSEUR, GABRIEL - -	856	27th March 1862	Apparatus for extinguishing fire. (Patented by William Edward Gedge.)
BRASSEUR, GABRIEL - -	2816	18th Oct. 1862	Improved apparatus for extracting condensed steam. (Patented by William Edward Gedge.)
BRAY, GEORGE - - -	916	1st April 1862	Improvements in machinery for carding wool and other fibrous substances.
BRAY, THOMAS - - -	539	27th Feb. 1862	Improvements in ornamenting wood in imitation of inlaid work.
BREACH, JOHN ROBERT -	2616	25th Sept. 1862	An improved machine for reducing or equalizing the length of animal or vegetable fibres.
BREAR, ABEL - - -	1017	9th April 1862	An improved apparatus for raising and forcing water and other liquids. (Patented by William Edward Newton.)
BREAREY, FREDERICK WIL- [LIAM.]	997	8th April 1862	Medicated cups or vessels for drinking purposes.
BRECKON, JOHN ROBERT -	3320	11th Dec. 1862	Manufacture of fire-bricks and other articles usually made from fire clay.
BRERETON, HENRY - -	3319	11th Dec. 1862	Machinery or apparatus for sizing yarns and threads.
BRÉTON, ELIE JEAN MARIE LE	2652	30th Sept. 1862	An improved propeller for boats and ships.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BREUL, ERNST - - -	3374	17th Dec. 1862	Machinery for spinning, twisting and rolling tobacco. (Patented by Thomas Critchley Barraclough.)
BRICKHILL, JAMES - - -	367	12th Feb. 1826	Improvements in the cylinders and pistons of steam-engines.
BRICOUT, JULIEN - - -	2770	14th Oct. 1862	Apparatus for carburetting gas. (Patented by Richard Archibald Brooman.)
BRICOUT, LOUIS - - -	2770	14th Oct. 1862	Apparatus for carburetting gas. (Patented by Richard Archibald Brooman.)
BRIDELL, EDMUND JOHN -	1505	17th May 1862	Improvements in the manufacture of substances artificially coloured, veined or mottled like marbles or other substances.
BRIDGE, DAVID CLARKE -	2570	19th Sept. 1862	Improvements in the formation of boilers to be employed for warming buildings and similar purposes.
BRIDSON, HENRY - - -	2764	14th Oct. 1862	Machinery for folding, measuring and hooking woven fabrics.
BRIERE, JULIAN - - -	2317	18th Aug. 1862	A continuous self-acting condenser being a new boiler feeding apparatus.
BRIERLEY, ABRAM - - -	3388	18th Dec. 1862	Carding-engines.
BRIERLEY, JESSE - - -	3388	18th Dec. 1862	Carding-engines.
BRIERLEY, JOHN HENRY -	229	29th Jan. 1862	An improved clasp or fastener for reversible belts, bands or straps.
BRIERLEY, JOHN HENRY -	808	24th March 1862	An improved clasp or fastener for reversible belts, bands or straps.
BRIERLEY, JOHN HENRY -	3161	25th Nov. 1862	Ladies' and gentlemen's leather collars.
BRIERLEY, JOSEPH - - -	1306	3rd May 1862	Improvements in the construction of fire-plugs or valves to be used in extinguishing fires, or for other purposes where water is required to be drawn from mains under pressure.
BRIERLEY, WALTER - - -	1571	26th May 1862	Apparatus connected with targets.
BRIGGS, CHARLES - - -	2985	4th Nov. 1862	Apparatus for condensing the steam of high pressure steam-engines.
BRIGGS, JAMES - - -	2189	2nd Aug. 1862	Improvements in the manufacture of belts, webs, braids, tapes, laces, and other similar articles produced by weaving, plaiting, or twisting.
BRIGGS, JONAS - - -	3078	15th Nov. 1862	Means or apparatus for spinning wool, mohair, alpaca and other fibres.
BRIGHT, HENRY - - -	1783	16th June 1862	Improved apparatus or arrangements for screening fires in stoves and grates, with the view to avoid accidents.
BRIGHT, RICHARD - - -	1254	29th April 1862	Improvements in lamps and in apparatuses for lighting argand and other wicked lamps.
BRIGHT, SIR CHARLES TIL- [STON.	538	27th Feb. 1862	Improvements in electric telegraphs and in apparatus connected therewith and employed in the manufacture thereof.
BRINDLEY, THOMAS FRANCIS [RICHARD.	1331	5th May 1862	Improvements in travelling and other flasks, decanters, bottles and other necked vessels.
BRINSMEAD, HENRY - - -	331	7th Feb. 1862	Improvements in apparatus for moving, elevating, cleaning and dressing grain.
BRINSMEAD, JOHN - - -	358	11th Feb. 1862	Pianofortes.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROADBENT, JOHN - - -	3433	24th Dec. 1862	Machinery for opening and cleaning cotton and other fibrous materials.
BROADBENT, RICHARD - - -	2671	3rd Oct. 1862	Gas regulators.
BROADLEY, JAMES - - -	1501	17th May 1862	Means or apparatus employed in weaving.
BROADWOOD, HENRY FOWLER	1283	30th April 1862	Improvements in the construction of piano-fortes.
BROCKLEHURST, THOMAS UN- [ETT.	1226	26th April 1862	Improvements in machinery for reeling singles, trains, organzines and sewing silks.
BROMHEAD, SIDNEY SAMUEL	624	8th March 1862	Improvements in the construction of boxes or receptacles for coals.
BROOK, ISAAC - - -	615	7th March 1862	Ladies' dresses.
BROOK, JOHN - - -	117	16th Jan. 1862	Improvements in the form of lubricators.
BROOKE, SIR WILLIAM O'- [SHAUGHNESSY.	2432	2nd Sept. 1862	Construction of submarine telegraphic cables.
BROOKS, SAMUEL - - -	1860	25th June 1862	Machinery for spinning and doubling.
BROOMAN, RICHARD ARCHI- [BALD.	8	1st Jan. 1862	Improvements in shears or scissors chiefly applicable to be employed in the manufacture of lace. (Communicated by Pierre Joseph Hen- ninot and André Carpentier.)
BROOMAN, RICHARD ARCHI- [BALD.	9	1st Jan. 1862	Improvements in supporting and propelling vessels. (Communicated by Auguste Salsmann.)
BROOMAN, RICHARD ARCHI- [BALD.	67	9th Jan. 1862	Apparatus for carburetting and burning gas. (Communicated by Léon Farrenc and Henri Gloesener.)
BROOMAN, RICHARD ARCHI- [BALD.	94	13th Jan. 1862	Improvements in the manufacture of cups, bowls, saucers and other dished articles and cases. (Communicated by Frederic Wilhelm Marx.)
BROOMAN, RICHARD ARCHI- [BALD.	159	21st Jan. 1862	Improvements in street and road sweeping machines, parts of which are applicable to the separation of liquid from solid substances. (Communicated by Victor Ferdinand Jeuneau.)
BROOMAN, RICHARD ARCHI- [BALD.	237	29th Jan. 1862	Machinery for puddling metals. (Communicated by François Dumeny and Firmin Lemut.)
BROOMAN, RICHARD ARCHI- [BALD.	294	4th Feb. 1862	Improvements in the manufacture of hard and soft soaps, and in the preparation of liquids for washing linen and other textile fabrics. (Communicated by Léo Bachelier.)
BROOMAN, RICHARD ARCHI- [BALD.	322	7th Feb. 1862	Improvements in stereoscopic albums, books and cases. (Communicated by Louis François Saugrin.)
BROOMAN, RICHARD ARCHI- [BALD.	370	12th Feb. 1862	Improvements in preparing and ornamenting cast iron and other metals, in order to fit them for articles of furniture and decoration and other similar uses. (Communicated by Jean Baptiste Godin.)
BROOMAN, RICHARD ARCHI- [BALD.	496	24th Feb. 1862	Reaping and mowing machines. (Communicated by Marie Pierre Ama- ranthe Ferdinand Mazier.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.	551	28th Feb. 1862	Manufacture of hats and bonnets. (Communicated by Messrs. Louis Pierre Quenot and Henri Joseph Lebargy.)
BROOMAN, RICHARD ARCHI- [BALD.	640	10th March 1862	Improvements in producing by the aid of photography copies of maps, charts, plans and drawings. (Communicated by Arthur Guy Morvan.)
BROOMAN, RICHARD ARCHI- [BALD.	692	13th March 1862	Improvements in apparatuses for measuring and regulating the flow and pressure of gas, parts of which are applicable to hydraulic receivers and to steam generators. (Communicated by Jean Claude Garnier.)
BROOMAN, RICHARD ARCHI- [BALD.	760	18th March 1862	Improvements in the manufacture of barytes and barytic products, and the application of these substances in the manufacture of sugar and other uses. (Communicated by Alfred Delaune.)
BROOMAN, RICHARD ARCHI- [BALD.	767	19th March 1862	Improvements in printing and painting upon glass and ceramic wares, and upon metallic and mineral substances, also in the preparation of inks and colours for printing and painting. (Communicated by Charles Raphael Maréchal and Cyprien Marie Tessié du Motay.)
BROOMAN, RICHARD ARCHI- [BALD.	768	19th March 1862	Improvements in reproducing or in producing copies of guipure lace, embroidery and other like articles. (Communicated by Rosalie Clémentine Tillard.)
BROOMAN, RICHARD ARCHI- [BALD.	769	19th March 1862	Rotary engines. (Communicated by Serkis Ballian.)
BROOMAN, RICHARD ARCHI- [BALD.	770	19th March 1862	Improvements in apparatuses for drawing in and paying out chain cables, applicable to windlasses and capstans. (Communicated by Jean Salette.)
BROOMAN, RICHARD ARCHI- [BALD.	853	27th March 1862	Improvements in machinery for preparing, combing and dressing vegetable fibres. (Communicated by John Andrew De Brame.)
BROOMAN, RICHARD ARCHI- [BALD.	926	2nd April 1862	Improvements in memorandum, pocket and other books, and in pencil and pen-holders to be used therewith. (Communicated by Eugene Recordon.)
BROOMAN, RICHARD ARCHI- [BALD.	964	4th April 1862	An improved case for holding balls and reels of cotton, silk and other threads. (Communicated by Théophile Denis Gustave Baudouin.)
BROOMAN, RICHARD ARCHI- [BALD.	1073	14th April 1862	Reaping and mowing machines. (Communicated by Ernest Clement.)
BROOMAN, RICHARD ARCHI- [BALD.	1074	14th April 1862	Improvements in carriages for transporting loads on railways, common roads and other surfaces. (Communicated by Nicolas de Maklakoff.)
BROOMAN, RICHARD ARCHI- [BALD.	1075	14th April 1862	Pumps. (Communicated by Jean Marie Henri Paul Metivier.)
BROOMAN, RICHARD ARCHI- [BALD.	1076	14th April 1862	An improved hobby horse. (Communicated by Amedée Constant Ponceau.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.	1128	17th April 1862	Taps and valves. (Communicated by Jean Antoine Clement, Antoine Crozy, and André Morateur.)
BROOMAN, RICHARD ARCHI- [BALD.	1129	17th April 1862	Improvements in buffing apparatuses and in draw-springs. (Communicated by Richard Dover Chatterton.)
BROOMAN, RICHARD ARCHI- [BALD.	1159	21st April 1862	Improvements in jackets or protectors for covering metal and other surfaces to prevent loss of heat by radiation. (Communicated by Charles Louis Ruquois.)
BROOMAN, RICHARD ARCHI- [BALD.	1299	2nd May 1862	Apparatus for superheating steam. (Communicated by Pierre Antoine Delafond and Joseph Corrade.)
BROOMAN, RICHARD ARCHI- [BALD.	1366	7th May 1862	An improved box and apparatus for containing and igniting matches. (Communicated by Louis Leonard Poulain.)
BROOMAN, RICHARD ARCHI- [BALD.	1367	7th May 1862	Swings. (Communicated by Joseph Ellicott Holmes.)
BROOMAN, RICHARD ARCHI- [BALD.	1445	13th May 1862	An improved means or apparatus for shunting trains. (Communicated by Jean Antoine Lancirotti and Paul Gemelli.)
BROOMAN, RICHARD ARCHI- [BALD.	1446	13th May 1862	Louvre blinds or shutters. (Communicated by Claude Robardet.)
BROOMAN, RICHARD ARCHI- [BALD.	1453	14th May 1862	An improved method and apparatus for the production of photographic and stereoscopic portraits and pictures. (Communicated by Leon Farrenc.)
BROOMAN, RICHARD ARCHI- [BALD.	1606	28th May 1862	Improvements in circular looms or machinery for the manufacture of looped or knitted fabrics. (Communicated by Charles Amédée de Laire de la Brosse and Emile Adrien Le Cœur.)
BROOMAN, RICHARD ARCHI- [BALD.	1774	14th June 1862	Improvements in coking ovens, in collecting and utilizing the products resulting from the distillation or carbonization of coal and other matters producing coke, and in apparatus employed therein. (Communicated by Charles Claude Philibert Nicolas Pernolet.)
BROOMAN, RICHARD ARCHI- [BALD.	1888	27th June 1862	A method or methods of preparing paper for the reception of photographic pictures or impressions, in order that the said pictures or impressions may be transferred to and fixed on wood, porcelain and other surfaces. (Communicated by Jean Théodore Dupuy.)
BROOMAN, RICHARD ARCHI- [BALD.	1917	1st July 1862	Construction of blast furnaces. (Communicated by Eugene Alexandre Frederic Goquel.)
BROOMAN, RICHARD ARCHI- [BALD.	1950	5th July 1862	Hollow plates for hydraulic presses. (Communicated by Charles Felix Petit, Jules Emile Petit, Hippolyte Petit, and Hyacinthe Leon Lemoult.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.	2056	18th July 1862	Generating heat in furnaces and fire-places. (Communicated by William Elijah Hagan.)
BROOMAN, RICHARD ARCHI- [BALD.	2061	19th July 1862	Improvements in revivifying animal black, in apparatus employed therein, and in recovering a product employed in the revivification. (Communicated by Absalon Hippolyte Leplay, and Jules François Joseph Cuisinier.)
BROOMAN, RICHARD ARCHI- [BALD.	2214	7th Aug. 1862	Improvements in ships and vessels in order to prevent injury from collisions. (Communicated by Donald Bethune.)
BROOMAN, RICHARD ARCHI- [BALD.	2215	7th Aug. 1862	Improvements in covering ships and vessels built of wood, or iron ships with a backing of wood, before placing iron, steel or other armour plates on such ships and vessels. (Communicated by Donald Bethune.)
BROOMAN, RICHARD ARCHI- [BALD.	2224	8th Aug. 1862	Repeating fire-arms. (Communicated by Rafael Rafael.)
BROOMAN, RICHARD ARCHI- [BALD.	2379	27th Aug. 1862	Machinery for separating or sorting and washing coal and other minerals. (Communicated by Maximilien Eorard.)
BROOMAN, RICHARD ARCHI- [BALD.	2441	3rd Sept. 1862	Improvements in tools for boring and in apparatus for working the same. (Communicated by Jean Rodolphe Leschot.)
BROOMAN, RICHARD ARCHI- [BALD.	2442	3rd Sept. 1862	Apparatus for transmitting electric telegraph messages and signals. (Communicated by Theodore Auguste Marie Sortais.)
BROOMAN, RICHARD ARCHI- [BALD.	2501	11th Sept. 1862	Implements for cultivating the soil. (Communicated by Victor Amédée de Gabriac.)
BROOMAN, RICHARD ARCHI- [BALD.	2597	23rd Sept. 1862	Lighting-apparatus. (Communicated by Felix Lucas.)
BROOMAN, RICHARD ARCHI- [BALD.	2598	23rd Sept. 1862	Photographic-apparatus. (Communicated by Jean Jacques Leopold Rousseau de Lafarge.)
BROOMAN, RICHARD ARCHI- [BALD.	2604	24th Sept. 1862	An improved composition for painting. (Communicated by Paul Caubet.)
BROOMAN, RICHARD ARCHI- [BALD.	2648	29th Sept. 1862	Saddle-trees and collars. (Communicated by Jules Christian Waltz.)
BROOMAN, RICHARD ARCHI- [BALD.	2744	11th Oct. 1862	Breech-loading fire-arms. (Communicated by Louis Julien Gastinne.)
BROOMAN, RICHARD ARCHI- [BALD.	2770	14th Oct. 1862	Apparatus for carburetting gas. (Communicated by Louis Bricout, Julien Bricout, and Emile Berlet.)
BROOMAN, RICHARD ARCHI- [BALD.	2771	14th Oct. 1862	Improvements in dressing millstones and in materials employed therein. (Communicated by Cyprien Marie Tessié du Motay and Charles Raphael Maréchal.)
BROOMAN, RICHARD ARCHI- [BALD.	2767	15th Oct. 1862	Improvements in felting-machines, applicable also to the fulling, scouring and dressing of pure and mixed woollen stuffs. (Communicated by Frederic Davis.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.	2788	15th Oct. 1862	Improvements in refrigerating and freezing and in apparatus employed therein. (Communicated by David Joseph Kennelly.)
BROOMAN, RICHARD ARCHI- [BALD.	2814	18th Oct. 1862	Frames for doubling and twisting threads. (Communicated by Constant Sauval.)
BROOMAN, RICHARD ARCHI- [BALD.	2820	20th Oct. 1862	Transferring designs and prints produced by photography to stone or zinc. (Communicated by François Louis Marquier.)
BROOMAN, RICHARD ARCHI- [BALD.	2835	21st Oct. 1862	Improvements in waterproofing and in recovering products employed therein. (Communicated by Adolph Baldamus.)
BROOMAN, RICHARD ARCHI- [BALD.	2862	23rd Oct. 1862	Tanning. (Communicated by Joseph Mouren.)
BROOMAN, RICHARD ARCHI- [BALD.	2973	3rd Nov. 1862	Machinery for moulding and compressing artificial fuel, peat, bricks, tiles and other substances. (Communicated by Jean Baptiste Defrasne.)
BROOMAN, RICHARD ARCHI- [BALD.	2984	4th Nov. 1862	Improvements in the manufacture of fringes and in machinery employed therein. (Communicated by Barthelemy Donnet.)
BROOMAN, RICHARD ARCHI- [BALD.	2993	5th Nov. 1862	Commodos or waterclosets. (Communicated by Jean Louis de Waroquier.)
BROOMAN, RICHARD ARCHI- [BALD.	2994	5th Nov. 1862	Taps or cocks. (Communicated by Jean Louis de Waroquier.)
BROOMAN, RICHARD ARCHI- [BALD.	2995	5th Nov. 1862	Spinning-frames. (Communicated by Frederic Hetzel.)
BROOMAN, RICHARD ARCHI- [BALD.	3083	13th Nov. 1862	An improved means or apparatus for shunting trains. (Communicated by Jean Antoine Lanzairetti and Paul Gemelli.)
BROOMAN, RICHARD ARCHI- [BALD.	3109	19th Nov. 1862	Tubular boilers, condensers, and superheaters. (Communicated by Pierre Antoine Delafond and Joseph Corradi.)
BROOMAN, RICHARD ARCHI- [BALD.	3119	20th Nov. 1862	A method of and apparatus for indicating and recording the course of ships and vessels. (Communicated by Joseph Corradi.)
BROOMAN, RICHARD ARCHI- [BALD.	3286	8th Dec. 1862	Kneading-machines. (Communicated by Alexandre Sezille.)
BROOMAN, RICHARD ARCHI- [BALD.	3299	9th Dec. 1862	Treating liquorice root to obtain liquid and solid extracts therefrom. (Communicated by Frumence Nicholas Freson.)
BROOMAN, RICHARD ARCHI- [BALD.	3 417	22nd Dec. 1862	Stoves or apparatus for heating and drying. (Communicated by Etienne Sauret and Eugene de Fleury.)
B ROOMAN, RICHARD ARCHI- [BALD.	3423	23rd Dec. 1862	A new or improved colouring matter or dye. (Communicated by Pierre Chalamel.)
BROSSE, CHARLES AMÉDÉE DE [LAIRE DE LA.	1606	28th May 1862	Improvements in circular looms or machinery for the manufacture of looped or knitted fabrics. (Patented by Richard Archibald Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROWN, ANDREW BETTS -	2058	19th July 1862	Steam-engines and boilers.
BROWN, DAVID - - -	2875	25th Oct. 1862	Improvements in rolling-machinery for rolling gun barrels, cannons and other articles.
BROWN, FREDERICK - -	43	6th Jan. 1862	Improvements in kitchen ranges and cooking apparatus.
BROWN, HARVEY - - -	1224	25th April 1862	Chimneys for lamps. (Patented by William Edward Newton.)
BROWN, JAMES - - -	991	8th April 1862	Improvements in protecting the bottoms and sides of ships and other entirely or partially submerged surfaces.
BROWN, JOHN - - -	202	25th Jan. 1862	An improved lubricating apparatus applicable to pistons.
BROWN, JOHN - - -	1886	27th June 1862	Certain improvements in power looms for weaving.
BROWN, JOHN - - -	1983	8th July 1862	An improved motion for actuating the doffers of carding-engines for carding cotton and other fibrous substances.
BROWN, JOHN - - -	2637	29th Sept. 1862	Certain improvements in carding-engines employed for carding cotton and other fibrous substances.
BROWN, JOHN - - -	3335	13th Dec. 1862	Manufacture of armour plates.
BROWN, JOHN - - -	3337	13th Dec. 1862	Hydraulic machinery.
BROWN, ROBERT - - -	3099	18th Nov. 1862	Improvements in warming and ventilating, more especially applicable to buildings, carriages and ships, and in apparatus to be employed for that purpose.
BROWN, SAMUEL SHAW -	3107	19th Nov. 1862	Manufacture of elastic fabrics or garments.
BROWN, THOMAS - - -	3002	5th Nov. 1862	Machinery for surfacing fibrous materials. (Communicated by William Fuzzard.)
BROWN, WILLIAM - - -	2875	25th Oct. 1862	Improvements in rolling-machinery for rolling gun-barrels, cannons and other articles.
BROWN, WILLIAM HENRY -	382	13th Feb. 1862	An improvement in yards, fore and aft booms and gaffs.
BROWNE, BENJAMIN - -	1144	19th April 1862	Breech-loading fire-arms. (Communicated by Felix Célestin Palis.)
BROWNE, BENJAMIN - -	3239	2nd Dec. 1862	Improvements in the construction of knobs or handles of door locks, and in the mode of connecting same with the sliding bolts thereof for advancing and drawing back said bolts. (Communicated by Jean Baptiste Poisot.)
BROWNE, WILLIAM HENRY -	3245	3rd Dec. 1862	Gas stoves.
BROWNE, WILLIAM HERBERT	2580	18th Sept. 1862	Dry and wet gas meters.
BROWNING, JOHN - - -	303	5th Feb. 1862	Aneroid barometers.
BROWNING, SAMUEL JOHN -	3192	28th Nov. 1862	Machines to be employed in brewing.
BRUNET, JOHN FRANCIS -	1209	25th April 1862	Improvements in the manufacture of fringes and in apparatus connected therewith. (Communicated by Edme Paul Villain.)
BRUNT, JOHN - - -	61	9th Jan. 1862	Gas meters.
BRUZAUD, EDWIN GEORGE -	528	26th Feb. 1862	Pianofortes.
BUCHANAN, GEORGE - -	3848	15th Dec. 1862	Machinery used in crushing sugar canes.
BUCHHOLZ, GUSTAV ADOLPH -	3113	19th Nov. 1862	An improved mode of manufacturing semolina and flour and in apparatus to be employed in such manufactures.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BUCK, JOHN TURNER - -	761	18th March 1862	Improvements in instrument and work cases known as "Ladies' companions."
BUCKHARDT, ROBERT - -	271	1st Feb. 1862	Improvements in æolian harps.
BUCKLAND, CHARLES - -	3141	22nd Nov. 1862	Improved safety signals for fire arm practice.
BUCKLAND, FRANCIS - -	2286	14th Aug. 1862	Manufacture of waterclosets.
BUCKLEY, SAMUEL - -	2691	4th Oct. 1862	Machinery for preparing cotton and other fibrous materials.
BUCKNALL, JOSEPH - -	2646	29th Sept. 1862	Construction of horse hoes.
BUCKNEY, THOMAS - -	1431	12th May 1862	Improvements in portable "tell tale" time keepers. (Communicated by Armand François Collin.)
BUDD, BERN LUM - - -	149	20th Jan. 1862	Making cartridges.
BUDDEN, JOHN LEGGETT -	3283	8th Dec. 1862	Means or apparatus for obtaining and applying motive-power for propelling or other purposes. (Communicated by Woodford Pilkington.)
BUFFET, AUGUSTE, junior -	2439	3rd Sept. 1862	Musical instruments. (Patented by William Clark.)
BULLER, WENTWORTH - -	3194	28th Nov. 1862	Improvements in spur supporting rings for fixing plates, dishes and other like articles in glost ovens.
BULLOCK, WILLIAM - -	955	4th April 1862	Letter printing machines.
BULLOUGH, JAMES - - -	1010	9th April 1862	Looms for weaving.
BULLOUGH, JOHN - - -	688	13th March 1862	Warping and beaming machines.
BULLOUGH, JOHN - - -	1010	9th April 1862	Looms for weaving.
BULLOUGH, JOHN - - -	1948	4th July 1862	Warping and beaming machines.
BULLOUGH, JOHN - - -	3301	9th Dec. 1862	Machinery or apparatus for preparing cotton or other fibrous materials to be spun.
BÜNGER, FREDERIC LUDOVICUS [HENRI WILLIAM.]	2890	27th Oct. 1862	Self-acting apparatus for discharging the water resulting from the condensation of steam. (Communicated by Bernard Andrae.)
BUNNETT, JOSEPH - - -	1054	12th April 1862	Improvements in revolving shutters, and in machinery for producing the same.
BUNNING, HENRY - - -	583	3rd March 1862	Improvements in the manufacture of lubricating grease or compounds.
BUNTING, JOHN GOLDING -	2539	16th Sept. 1862	A mechanical horse break.
BUNTING, RICHARD - - -	412	15th Feb. 1862	Improvements in the manufacture of bolsters and scales, and in machinery employed therein.
BURAN, GUILLAUME LOUIS [EDWARD.]	338	10th Feb. 1862	Improvements in the treatment of coprolites and other fossil phosphates of lime. (Patented by Marc Antoine François Mennons.)
BURCHALL, JOHN - - -	3276	6th Dec. 1862	Propellers for ships and other navigable vessels.
BURDEN, WILLIAM CHESTER- [TON.]	2716	8th Oct. 1862	Improvements in mechanism for giving the pitch or tone required in tuning musical instruments and also the key note of vocal music.
BURDET, URSULE ANTOINETTE [CHAPELON.]	2969	3rd Nov. 1862	Improvements in castors and in the manufacture of the same. (Patented by William Clark.)

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BURDON, WILLIAM WHARTON	2203	6th Aug. 1862	Reducing wood fibres to pulp.
BURGE, GEORGE - - -	1033	10th April 1862	An improved means of protecting forts, ships and structures and places against projectiles and other striking bodies.
BURGESS, ARTHUR WELLING- [TON.	3323	11th Dec. 1862	Preparation of anchovies.
BURGESS, CHARLES THOMAS -	2151	29th July 1862	An improved stand for beer and other casks.
BURGESS, WILLIAM - - -	160	21st Jan. 1862	Reaping and mowing machines.
BURKE, MICHAEL - - -	950	3rd April 1862	Improvements in reclining or invalids' chairs and in swinging or ships' chairs.
BURLEY, RICHARD - - -	896	31st March 1862	An improved material for forming or lining the bearings of axles and shafts and other rubbing parts of machinery.
BURLEY, ROBERT - - -	1335	5th May 1862	Improved arrangements for using ordnance under water and in part applicable otherwise.
BURMEISTER, CARL CHRISTIAN	2864	24th Oct. 1862	Improvements in the construction of "cupolas," and in apparatus connected therewith for naval or other war purposes.
BURNETT, EDMUND - - -	2141	28th July 1862	An improved combined cart and sleigh.
BURNETT, WILLIAM HICKLING	1532	21st May 1862	Improvements in the mode of working telegraphic lines, and in instruments and apparatus employed for telegraphic purposes.
BURNETT, WILLIAM HICKLING	3095	18th Nov. 1862	Improvements in the mode of working telegraphic lines, and in instruments and apparatus employed for telegraphic purposes.
BURNIE, JOHN - - -	1241	28th April 1862	Tobacco pipes.
BURRIDGE, HENRY - - -	3039	11th Nov. 1862	Improvements in apparatus for extinguishing fires, applicable also for ventilating and fumigating and for supplying, delivering and distributing fluids.
BURRIDGE, WILLIAM - - -	2935	30th Oct. 1862	Horse shoe machines. (Patented by George Haselkine.)
BURROWS, GEORGE CRISP -	389	13th Feb. 1862	Improvements in lounges, seats or other apparatus for sitting or reclining on, which improvements are also applicable to rocking horses.
BURT, HENRY POTTER - - -	1631	30th May 1862	Improvements in protecting wooden posts from decay, more particularly applicable to posts for supporting electric telegraph wires.
BURTON, CHARLES LOUIS [PIERRE.	1350	6th May 1862	Improvements in the manufacture and production of minium or red lead. (Patented by John Henry Johnson.)
BURTON, CHARLES LOUIS [PIERRE.	1352	6th May 1862	Improvements in the manufacture of soda and potash, and of their carbonates. (Patented by John Henry Johnson.)
BURTON, HENRY - - -	3378	17th Dec. 1862	Castors for furniture and other purposes.
BURTON, HENRY MORTIMER -	599	5th March 1862	Improvements in apparatus for displaying or exhibiting jewellery and other valuable articles in glass cases.
BURTON, JOHN WATSON - -	3428	23rd Dec. 1862	Improvements in the construction of the permanent way of railways, which improvements are also applicable to railway wheels.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BUSFIELD, JOHN - - -	342	10th Feb. 1862	Improvements in machinery or apparatus for preparing wool for dyeing and spinning.
BUSH, JOHN - - -	2249	11th Aug. 1862	Apparatus for distillation.
BUSH, WILLIAM - - -	10	1st Jan. 1862	Improvements in omnibuses and other carriages.
BUSH, WILLIAM - - -	433	18th Feb. 1862	Improvements in omnibuses and other carriages.
BUSH, WILLIAM - - -	1050	11th April 1862	Improvements in the construction of ships and shields.
BUSH, WILLIAM - - -	1534	21st May 1862	Improvements in the construction of ships and in shields or armour for ships and batteries.
BUSH, WILLIAM - - -	2723	9th Oct. 1862	Cannon and small arms.
BUSBY, ROBERT - - -	1336	5th May 1862	An improved method of lifting or lightening ships for entering shallow harbours or docking and other purposes.
BUTCHER, MATTHEW - -	962	4th April 1862	Improvements in apparatus for reefing and furling sails from the deck.
BUTLER, AMBROSE EDMUND [HEATH BUCKLEY.	2511	12th Sept. 1862	Machinery for straightening and polishing cylindrical bars of iron and other metals.
BUTLER, JOHN OCTAVIUS -	1982	9th July 1862	Improvements in steam hammers and in framings therefor.
BUTLIN, WILLIAM - - -	2827	21st Oct. 1862	Machinery for splitting leather, and also for making usable leather out of waste pieces, likewise the machinery necessary for the production of the same.
BUTTERWORTH, ELLIS - -	1048	11th April 1862	Improvements in machinery for applying adhesive substances to preserve the form of cops of yarn.
BYRAM, JOSEPH - - -	2830	21st Oct. 1862	Improvements in lamps for the combustion of paraffin, rock oil or other oils.
BYRNES, AUNGIER - - -	1908	30th June 1862	Breech-loading fire-arms.
BYRON, WILLIAM - - -	1633	30th May 1862	Apparatus for hoisting goods.
BYSTRÖM, OSCAR FREDRIK -	1951	5th July 1862	An improved pyrometer.

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CABIROL, JOSEPH MARTIN -	2864	4th Oct. 1862	A new or improved submarine lamp.
CABOURG, THOMAS - - -	1343	6th May 1862	Improvements in machines for the purpose of uniting together by means of screws leather used in the manufacture of boots and shoes and other articles composed of two or more pieces of leather.
CABRIÈRES, FRANÇOIS MARIE GUSTAVE RAYMOND BARON [DE ROVERIE DE.	2676	3rd Oct. 1862	An improved marquetry or veneer saw and machinery or apparatus connected therewith. (Patented by William Edward Gedge.)
CADDICK, DAVID - - -	1503	17th May 1862	Puddling-furnaces.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CAFLISH, ARNOLD - -	155	21st Jan. 1862	Improvements in machinery or apparatus for counting and indicating the number of revolutions of shafts or other articles and for exerting powers. (Patented by Henry Bernoulli Barlow.)
CAHILL, CHARLES STAUNTON	1679	4th June 1862	Manufacture of felted fabrics suitable for hats, bonnets and other purposes.
CAIL, JEAN FRANÇOIS - -	383	13th Feb. 1862	Improvements in towing boats or other vessels on rivers, and in apparatus employed for that purpose. (Patented by Charles Denton Abel.)
CAILLOUË, CHARLES JEAN [BAPTISTE EUGÈNE.	357	11th Feb. 1862	Smoothing-irons. (Patented by John Henry Johnson.)
CAIRD, JAMES TENNANT -	3188	28th Nov. 1862	Steam-engines.
CALEY, FREDERICK GOODMAN	1247	29th April 1862	An improved textile fabric.
CALEY, JOHN WILLIAM -	1247	29th April 1862	An improved textile fabric.
CALLEBAUT, CHARLES - -	1162	21st April 1862	Some improvements in sewing-machines.
CALLEBAUT, CHARLES - -	1900	28th June 1862	Certain improvements in sewing-machines.
CALLEBAUT, CHARLES - -	2328	20th Aug. 1862	Sewing-machines.
CALOW, CHARLES - - -	310	6th Feb. 1862	Improvements in slide valves for steam-engines and other similar purposes.
CALOW, JOHN THOMAS -	648	10th March 1862	An improved safety apparatus applicable to cages or hoists used in mining or lifting machines.
CALVERT, GEORGE - -	693	13th March 1862	Castors.
CAMBRIDGE, WILLIAM COL- [BORNE.	2661	1st Oct. 1862	Improved apparatus for washing clothes, applicable also as a churn.
CAMP, EDWIN GILLARD -	657	11th March 1862	Brushes or apparatus for brushing.
CAMP, JAMES PETERKIN [DOUGLAS.	478	22nd Feb. 1862	Improvements in the arrangement of valves for steam and other engines, and in the means of operating the same. (Communicated by Henry Steele.)
CAMPBELL, ARCHIBALD SA- [MUELS.	1059	12th April 1862	Surface condensers.
CAMPBELL, ARCHIBALD SA- [MUELS.	1060	12th April 1862	Improvements in the refrigeration of liquids.
CAMPBELL, JAMES, junior -	3275	6th Dec. 1862	Means or apparatus for heckling or hackling flax and other fibres.
CAMPBELL, JOHN GEORGE [TRUSCOTT.	774	20th March 1862	Certain improvements in ships' propellers.
CAMPBELL, THOMAS - -	1658	2nd June 1862	Apparatus for "witneying" piled fabrics.
CAMPION, WILLIAM - -	306	5th Feb. 1862	Improvements in machinery or apparatus for making the welts of hose or other articles made of looped or knitted fabrics.
CANN, JOHN MC - - -	1373	7th May 1862	Improvements in the mode of and apparatus for drying, cooling and cleaning grain.
CANONICAT, PAUL ANTOINE [LUCIEN.	2023	14th July 1862	Improvements in filtering water and in apparatus employed therein.
CARBONELL, JOSEPH - -	3186	28th Nov. 1862	Improvements in preparing, manufacturing and washing the paper pulp derived from the esparto plant, and in apparatus connected therewith.
CARBUTT, EDWARD HAMER -	1041	11th April 1862	Pistons.
CARBUTT, EDWARD HAMER -	2660	23rd Oct. 1862	Power hammers.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CARLIER, FRANÇOIS - -	2096	23 July 1862	Means and apparatus for extinguishing fires either on land or water. (Patented by Alphonse Vignon.)
CARMEN, PIERRE JACQUES -	3140	22nd Nov. 1862	An improved elliptical compass. (Patented by William Edward Gedge.)
CARNABY, JOHN - - -	499	25th Feb. 1862	Improvements in turning, managing and regulating the taps and valves of gas pipes.
CARPENDALE, JOHN - -	611	7th March 1862	Improvements in means of producing raised chasing on copper, silver and Britannia metal, by the application of pressure.
CARPENDALE, JOHN - -	2872	25th Oct. 1862	Improvements in the means of producing raised chasing on Britannia and other compressible metals.
CARPENTER, HIRAM - -	151	21st Jan. 1862	Improvements in the permanent way of railways. (Patented by John Adams Knight.)
CARPENTER, SAMUEL ALFRED	206	27th Jan. 1862	An improvement or improvements in covering and combining strips or bands of steel for crinoline or crinoline skirts.
CARPENTER, WILLIAM - -	1180	23rd April 1862	An improved method of printing in colours.
CARPENTIER, ANDRÉ - -	8	1st Jan. 1862	Improvements in shears or scissors chiefly applicable to be employed in the manufacture of lace. (Patented by Richard Archibald Broome.)
CARR, HENRY - - -	839	26th March 1862	Improvements in applying lubricating fluids to the journals of railway carriages and locomotive engines.
CARR, THOMAS - - -	1851	24th June 1862	An improved machine for grinding, kneading, washing and other like purposes.
CARRICK, WILLIAM - -	2650	29th Sept. 1862	Felting-apparatus.
CARRICK, WILLIAM, junior -	2650	29th Sept. 1862	Felting-apparatus.
CARRINGTON, JAMES - -	337	8th Feb. 1862	Improvements in the construction and fitting up of stalls and horse boxes.
CARRINGTON, JAMES - -	989	7th April 1862	Improvements in the form of bricks, and in the arrangement thereof for paving stables and stable yards.
CARSON, JAMES - - -	3111	19th Nov. 1862	Machinery for printing, numbering and dating railway and other tickets.
CARTER, ALFRED EDWIN -	6066	6th March 1862	Screw cocks.
CARTER, CHARLES PEMBERTON	996	8th April 1862	An instrument for inserting photographic or other pictures into or removing them from between the "mounts" of photographic albums or other flat spaces into which the fingers cannot be inserted.
CARTER, JOHN - - -	71	10th Jan. 1862	A new or improved draining plough. ¹
CARTER, JOHN - - -	101	14th Jan. 1862	An improved shaft, tug or bearer used in harness.
CARTER, JOHN - - -	2304	15th Aug. 1862	Construction of power looms.
CARTER, JOHN EDWARD -	3477	30th Dec. 1862	Chimney tops.
CARTER, JOHN MONEY - -	1277	30th April 1862	Improvements in harness and the shafts of carriages.
CARTHY, CHARLES MC. - -	2754	13th Oct. 1862	Automatic safety valves.
CARTWRIGHT, CHARLES - -	1809	19th June 1862	Improved means of stopping or retarding trains on railways.
CARTWRIGHT, HENRY - -	1424	12th May 1862	Propelling and steering screw steam vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CARTWRIGHT, MATTHEW -	21	2nd Jan. 1862	Improvements in the manufacture of models and of "plates" or "pieces" for artificial teeth.
CARTWRIGHT, MATTHEW -	1105	16th April 1862	Improvements in the manufacture of models and of plates or pieces for artificial teeth, and in combining or amalgamating india-rubber and gutta-percha with metals for the manufacture of artificial plates or pieces and for other purposes.
CARTWRIGHT, MATTHEW -	2769	14th Oct. 1862	Plates for artificial teeth.
CARVIN, THOMAS - - -	2301	15th Aug. 1862	Screw propellers.
CARWOOD, WILLIAM - -	2352	22nd Aug. 1862	Apparatus for propelling ships and other vessels.
CASE, HENRY LAMSON - -	2877	25th Oct. 1862	Construction of the joints of cast-iron gas and water mains and other pipes. (Patented by William Clark.)
CASH, JOHN - - - -	2799	16th Oct. 1862	Manufacture of valentines.
CASH, JOSEPH, junior - -	2799	16th Oct. 1862	Manufacture of valentines.
CASLON, HENRY WILLIAM -	925	1st April 1862	Improvements in casting printing types and in apparatus for rubbing the same.
CASSAIGNES, VICTOR JULIEN	3071	14th Nov. 1862	Stereoscopes.
CASSEGRAIN, PAUL FRANÇOIS	2079	22nd July 1862	Fire-arms.
CASTELBON, HENRY - -	3255	4th Dec. 1862	An improved press to be used in the manufacture of tiles and bricks. (Communicated by Jean Joseph Felix.)
CATCHPOOL, WILLIAM - -	2745	11th Oct. 1862	Fire-escapes.
CATHELS, EDMUND SMALL -	3066	14th Nov. 1862	Apparatus used in the manufacture of gas.
CATLOW, CHRISTOPHER - -	3360	16th Dec. 1862	Improvements in looms for weaving and in arranging the warps therein.
CAUBET, PAUL - - - -	2604	24th Sept. 1862	An improved composition for painting. (Patented by Richard Archibald Brooman.)
CAULFIELD, WILLIAM BEARE	3162	25th Nov. 1862	A new kind of porous stems for tobacco pipes.
CAUTLEY, RICHARD KINGS- [MAN.	3237	2nd Dec. 1862	Electro-thermal baths. (Communicated by Mark House.)
CAVAILLÉ-COLL, ARISTIDE -	1703	5th June 1862	Improvements in the construction of organs and other wind instruments, parts of which improvements are also applicable for regulating the pressure and flow of gas and air. (Patented by William Edward Newton.)
CAZAL, JEAN HENRY - -	1620	29th May 1862	An improved method of throwing the shuttles of looms. (Patented by William Clark.)
CAZIER, SABIN JOSEPH - -	2109	24th July 1862	Improvements in apparatus for retarding and stopping carriages, especially applicable to railway carriages, and in disconnecting apparatus for carriages. (Patented by Michael Henry.)
CHADWICK, MATTHEW - -	105	14th Jan. 1862	Improvements in machinery for folding or plating cloth, and for measuring the same.
CHADWICK, MATTHEW - -	2523	13th Sept. 1862	Machinery for doubling, folding or plaiting cloth or other woven fabrics.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHALAMEL, PIERRE - -	3423	23rd Dec. 1862	A new or improved colouring matter or dye. (Patented by Richard Archibald Brooman.)
CHALMERS, DAVID - -	3313	10th Dec. 1862	Improvements in the preparation or manufacture of textile materials and in the machinery or apparatus used therein.
CHALMERS, JAMES - -	2897	28th Oct. 1862	Improvements in armour plating ships of war and fortifications.
CHALMERS, JAMES - -	3105	19th Nov. 1862	Improvements in the use, combination, and application of iron and timber as armour for vessels of war and fortifications.
CHAMPION, MARIE HONORÉ -	2245	11th Aug. 1862	Self-closing buttons fastening without thread or needles.
CHANT, EDWARD GEORGE -	2529	15th Sept. 1862	Improvements in self-binding portfolios or holders for newspapers, music, documents, letters and other papers, or for woven or other fabrics or articles which it may be desired to bind or hold together.
CHAPLIN, ALEXANDER - -	2853	23rd Oct. 1862	Improvements in obtaining fresh water by evaporation, and in apparatus therefor.
CHAPMAN, ARTHUR - -	1365	7th May 1862	Apparatus for preventing collisions on railways.
CHAPMAN, GEORGE - -	224	28th Jan. 1862	Rotating circular knitting-frames.
CHAPMAN, GEORGE - -	2312	18th Aug. 1862	Reaping-machines.
CHAPMAN, ROBERT JAMES -	3030	10th Nov. 1862	Manufacture of glass and emery paper or cloth.
CHARCOUCHET, JACQUES LA- [ZARE.	550	28th Feb. 1862	Machinery for breaking stone.
CHARLES, ANDREW PATON -	3236	2nd Dec. 1862	Improvements in candles and night lights, and in the lamps or apparatus for burning the same.
CHARLTON, HENRY - -	82	11th Jan. 1862	Improvements in the manufacture of certain kinds of shoes for mules and horses.
CHARVET, HENRI - -	64	9th Jan. 1862	Improvements in the spinning of cotton and in its various applications.
CHARVET, LOUIS - -	1583	27th May 1862	Improvements in the manufacture of wire ropes or cables. (Patented by William Edward Gedge.)
CHÂTEAU, LOUIS JACQUES -	347	10th Feb. 1862	Reflectors. (Patented by William Clark.)
CHATTERTON, JOHN - -	413	15th Feb. 1862	Telegraph cables.
CHATTERTON, RICHARD DOVER	1129	17th April 1862	Improvements in buffing apparatuses and in draw-springs. (Patented by Richard Archibald Brooman.)
CHATTWOOD, JOSEPH - -	2883	27th Oct. 1862	Ventilating rooms and cellars.
CHATWOOD, SAMUEL - -	2750	13th Oct. 1862	Improvements in and connected with fire and thief proof depositories and locks or fasteners connected therewith, parts of which improvements are also applicable to other purposes of security.
CHAUBART, LÉOPOLD - -	1650	31st May 1862	An improved mode of and apparatus for raising the level of water in rivers, canals and other watercourses.
CHAVASSE, HORACE - -	469	22nd Feb. 1862	An improvement or improvements in the manufacture and ornamentation of metallic bedsteads, part of which is also applicable to other articles.

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHEAVIN, GEORGE - -	1231	26th April 1862	Improvements in filtering and purifying water and in apparatus employed therein.
CHEAVIN, SQUIER - - -	1231	26th April 1862	Improvements in filtering and purifying water and in apparatus employed therein.
CHEETHAM, WILLIAM - -	1086	15th April 1862	Looms for weaving.
CHEILLEY, HUGUES MICHEL -	1449	13th May 1862	An improvement in or addition to gloves. (Patented by Michael Henry.)
CHEILLEY, PHILIPPE - -	1449	13th May 1862	An improvement in or addition to gloves. (Patented by Michael Henry.)
CHEILLEY, PHILIPPINE AN- [TOINETTE.	1449	13th May 1862	An improvement in or addition to gloves. (Patented by Michael Henry.)
CHENAILLIER, PAUL - -	1347	6th May 1862	Improvements in apparatus for concentrating liquids, or for condensing alcoholic or other vapours.
CHESNEAU, AUGUSTE - -	1524	20th May 1862	Paddle and other hydraulic wheels. (Patented by William Clark.)
CHEVERON PIERRE FRANÇOIS [CLÉO.	2972	3rd Nov. 1862	A new method of and apparatus for weaving Indian shawls and other figured tissues.
CHILD, JOHN WRIGHT - -	3120	20th Nov. 1862	Means and apparatus for working wool and other fibres.
CHILD, ORANGE WATSON -	1987	8th July 1862	A new and useful composition to be used in shaft journal boxes. (Communicated by John Absterdam.)
CHILDS, AUGUSTUS BRYANT -	1547	22nd May 1862	Wringing-machines. (Communicated by Francis Adams Cushman.)
CHILDS, AUGUSTUS BRYANT -	2261	12th Aug. 1862	Machinery for cutting veneers. (Communicated by Harrison Parker and Jonathan Charles Sleeper.)
CHILDS, DAVID MONROE -	1257	29th April 1862	Improvements in steam-engines. (Communicated by James Mills Ray, John Hooper Redstone, and Albert Ellis Redstone.)
CHILDS, DAVID MONROE -	1258	29th April 1862	Reaping and mowing machines. (Communicated by James Mills Ray, John Hooper Redstone, and Albert Ellis Redstone.)
CHILDS, DAVID MONROE -	1259	29th April 1862	Improvements in the means of changing a rotary into a reciprocating and a reciprocating into a rotary movement in machinery. (Communicated by James Mills Ray, John Hooper Redstone, and Albert Ellis Redstone.)
CHILDS, JAMES - - -	1072	14th April 1862	Improvements in the manufacture of wax matches.
CHINNOCK, CHARLES - -	2333	20th Aug. 1862	An improved construction of cork-screw.
CHINNOCK, CHARLES - -	2576	19th Sept. 1862	Construction of cork-screws.
CHINNOCK, CHARLES - -	2702	6th Oct. 1862	Construction of axle-boxes.
CHODZKO, NAPOLÉON FÉLIX [BORUKO DE.	689	13th March 1862	Improvements in furnaces for consuming smoke. (Patented by Edward Thomas Hughes.)
CHOLLET, LOUIS JOSEPH [MAXIMILIEN.	3014	7th Nov. 1862	Decorticating grain and seeds. (Patented by John Henry Johnson.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHRISTEN, HENRY JÉRÉMIE -	1354	6th May 1862	Cylinder printing apparatus. (Patented by William Clark.)
CHRISTOPH, LOUIS - - -	1029	10th April 1862	Improvements in drawing metals, and in the machinery or apparatus employed therein.
CHRISTOPH, LOUIS - - -	3262	5th Dec. 1862	Improvements in drilling, drawing and rolling metals, and in the machinery or apparatus employed therein.
CHRYSTAL, WILLIAM - - -	467	21st Feb. 1862	Improvements in sheaves or pulleys, journals, bushes and other similar bearing or rubbing surfaces.
CHUBE, JOHN - - - -	599	5th March 1862	Improvements in apparatus for displaying or exhibiting jewellery and other valuable articles in glass cases.
CHURCH, ARTHUR HERBERT -	220	28th Jan. 1862	Improvements in the means of preserving stone, brick, slate, wood, cement, stucco, plaster, whitewash and colourwash from the injurious action of atmospheric and other influences, also in the application of colours to the surfaces of stone, brick, slate, wood, cement, stucco, mortar, clay, plaster-of-paris, plaster, whitewash and colourwash, and in the retention of such colours thereon.
CHURCHILL, LORD ALFRED [SPENCER.]	458	20th Feb. 1862	Electric telegraphs.
CHURCHILL, WILLIS - - -	1200	24th April 1862	Harrows or cultivators. (Patented by George Washington Belding.)
CIBERT, VICTOR - - - -	2546	16th Sept. 1862	Apparatus for cutting and finishing the teeth of wheels. (Patented by Charles Edward Guye.)
CIMEG, JOHN - - - -	2314	18th Aug. 1862	Depositing silver and other metals on fabrics and other materials.
CLARAZ, AMBROSE - - -	3003	6th Nov. 1862	A machine for plaiting straw and such like material. (Patented by Frederick Goodyear.)
CLARE, JEREMIAH - - -	1457	14th May 1862	Improvements in machinery or apparatus for preparing cotton or other fibrous materials to be spun.
CLARK, ALEXANDER - - -	975	5th April 1862	Improvements in the manufacture of revolving window shutters and blinds, in window sash bars and plates, also in apparatus used in such manufactures.
CLARK, ANDREW - - - -	2878	25th Oct. 1862	Construction of bows and pendants of watches.
CLARK, CHARLES - - - -	534	27th Feb. 1862	Tea and other trays for the table.
CLARK, CHARLES - - - -	1363	7th May 1862	An improved cigar tube.
CLARK, CHARLES - - - -	2876	27th Aug. 1862	Improvements in tea and other trays for the table, and in urns and apparatus intended to be used therewith.
CLARK, CHARLES - - - -	2833	21st Oct. 1862	Improvements in cigar tubes, and in cigar and pipe mouth-pieces.
CLARK, EDWARD BEEL - -	2154	29th July 1862	Improvements in the manufacture of candles and in apparatus employed therein.
CLARK, EDWIN - - - -	1251	29th April 1862	Arches. (Communicated by Johann Fillunger.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, GEORGE - - -	2841	22nd Oct. 1862	Improvements in the construction, protection and armament of ships, vessels and floating batteries, some of which improvements are applicable to land batteries and forts.
CLARK, GEORGE - - -	3333	12th Dec. 1862	Improvements in fortification for the defence of ships, batteries and forts.
CLARK, JAMES - - -	3020	8th Nov. 1862	Improvements in the motive mechanism of pianofortes.
CLARK, JOHN - - -	2821	20th Oct. 1862	Means of applying railway breaks.
CLARK, MATTHEW - - -	3418	22nd Dec. 1862	Treating waste liquors obtained when dyeing turkey red colours.
CLARK, ROBERT - - -	3322	11th Dec. 1862	Machinery or apparatus for boring, winding and lifting for mining purposes.
CLARK, THOMAS OFFEN - -	2970	3rd Nov. 1862	An improved portable spring bottom bedstead. (Communicated by Joseph Moiroux.)
CLARK, WILLIAM - - -	80	10th Jan. 1862	Improvements in apparatus for generating and applying steam as a motive-power. (Communicated by Mr. Louis Arnier.)
CLARK, WILLIAM - - -	184	24th Jan. 1862	Improvements in the manufacture of artificial flowers, leaves and fruit. (Communicated by Joseph Dominique Alphonse Favier.)
CLARK, WILLIAM - - -	235	29th Jan. 1862	Improvements in the disintegration and bleaching of textile materials for the manufacture of paper. (Communicated by Mr. Jean Baptiste Michel Auguste Siry.)
CLARK, WILLIAM - - -	250	30th Jan. 1862	Mechanical wrenches. (Communicated by Messrs. Pierre Augustin Samuel and Auguste Toussaint Ozou-de-Verrie.)
CLARK, WILLIAM - - -	279	1st Feb. 1862	Improvements in machinery or apparatus for the manufacture of festooned edging or material. (Communicated by Mr. Jean Joseph Basset.)
CLARK, WILLIAM - - -	288	3rd Feb. 1862	Improvements in processes for preserving and colouring wood, denominated xylochromic and xyloplastic processes. (Communicated by Messrs. Heinrich Sperl, Dr. Richard Hagen, and Wolfgang Springer.)
CLARK, WILLIAM - - -	328	7th Feb. 1862	Improvements in preserving timber, which are particularly applicable to the timbers of ships or other maritime structures. (Communicated by Mr. Henri De Laparent.)
CLARK, WILLIAM - - -	347	10th Feb. 1862	Reflectors. (Communicated by Mr. Louis Jacques Château.)
CLARK, WILLIAM - - -	349	10th Feb. 1862	Improvements in refining cast iron, wrought and other malleable iron, and in the cementation of iron. (Communicated by Messrs. Louis Joseph Frédéric Margueritte and Alfred Lalouët de Sourdeval.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	398	14th Feb. 1862	Improvements in mounting and fixing the handles or knobs of doors, furniture and other articles. (Communicated by Mr. Felix Hilaire Gallimard.)
CLARK, WILLIAM - - -	431	18th Feb. 1862	Improvements in gas apparatus used for lighting cigars and other tobacco. (Communicated by Mr. Pierre Duchamp.)
CLARK, WILLIAM - - -	491	24th Feb. 1862	Improvements in apparatus for feeding or supplying steam-boilers with water. (Communicated by Messrs. François Pradel and François Théodore Wahl.)
CLARK, WILLIAM - - -	505	25th Feb. 1862	Tobacco pipes. (Communicated by Mr. Paul Ambroise Dowry.)
CLARK, WILLIAM - - -	527	26th Feb. 1862	Improvements in the clasps or fastenings of bracelets, neck chains and other articles of jewellery. (Communicated by Messrs. Eugène Fauche and Charles Auguste Ravaut.)
CLARK, WILLIAM - - -	630	8th March 1862	Improvements in brims and peaks of hats, caps and other coverings for the head. (Communicated by Jonas Haas.)
CLARK, WILLIAM - - -	663	11th March 1862	Apparatus for effecting submarine operations. (Communicated by Mr. Olivier Riou.)
CLARK, WILLIAM - - -	675	12th March 1862	Improvements in the manufacture of coloured inks. (Communicated by Mr. Annaet Jacques Nadaud.)
CLARK, WILLIAM - - -	712	15th March 1862	An improved break for railroad carriages. (Communicated by Augustin Irel Ambler, Roseline Nancy Ambler, and Warrick Martin.)
CLARK, WILLIAM - - -	727	17th March 1862	Water meters. (Communicated by Mr. Frank Grant Johnson.)
CLARK, WILLIAM - - -	780	20th March 1862	Manufacture of soap. (Communicated by Mr. Antoine Auguste Mollard.)
CLARK, WILLIAM - - -	792	21st March 1862	Improvements in sewing-machines, which improvements are also partly applicable to other machinery, for giving a rotating motion always in the same direction. (Communicated by Mr. Charles Rhodes Goodwin.)
CLARK, WILLIAM - - -	908	1st April 1862	Manufacture of manure. (Communicated by Mr. Leopold Eugène Lavigne.)
CLARK, WILLIAM - - -	909	1st April 1862	Kneading-machines. (Communicated by Mr. Ovide Isidore Boland.)
CLARK, WILLIAM - - -	934	2nd April 1862	An improved apparatus for manifold writing. (Communicated by Mr. Joseph Charles Thomas Devaux.)

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	936	2nd April 1862	Improvements in the manufacture of carbonic acid. (Communicated by Messrs. Louis Joseph Frédéric Margueritte and Alfred Lalouët de Sourdeval.)
CLARK, WILLIAM - - -	1049	11th April 1862	Improvements in the manufacture of leathern accoutrements. (Communicated by Messrs. Adolphe Blanc and Jean Frédéric Auguste Marty.)
CLARK, WILLIAM - - -	1089	15th April 1862	Improvements in ornamenting fabrics and other surfaces. (Communicated by Messrs. Eugène Siess and Charles Prosper Coindreas.)
CLARK, WILLIAM - - -	1133	17th April 1862	Improvements in the manufacture of railway rails. (Communicated by Jean Baptiste Debrieux.)
CLARK, WILLIAM - - -	1230	26th April 1862	Improvements in collars, wrist-bands and cuffs. (Communicated by Jules Hippolyte Jean Baptiste Delosme.)
CLARK, WILLIAM - - -	1252	29th April 1862	An improved method of preserving animal and vegetable substances. (Communicated by Mr. Jules René Lion.)
CLARK, WILLIAM - - -	1353	6th May 1862	An improved buckle or fastening. (Communicated by Jean Louis André.)
CLARK, WILLIAM - - -	1354	6th May 1862	Cylinder printing apparatus. (Communicated by Messrs. Felix Marie Baudouin and Henry Jérémie Christen.)
CLARK, WILLIAM - - -	1403	10th May 1862	The application of a vegetable fibre, alone or in combination with other matters, in the manufacture of felted and other fabrics, also as a substitute for flock or powdered wool, and as a material for padding or stuffing and for other useful purposes. (Communicated by Mr. Jean Louis Abeilhau.)
CLARK, WILLIAM - - -	1413	10th May 1862	Improvements in lamps and in apparatus for filling lamps with oil or fluid to be consumed. (Communicated by Mr. Jacques Isidore Désélys.)
CLARK, WILLIAM - - -	1418	12th May 1862	Smoke-consuming fire-grates. (Communicated by Mr. Louis François Rojare.)
CLARK, WILLIAM - - -	1443	13th May 1862	Improvements in apparatus for generating motion in fluids, applicable for raising and forcing water, propelling, and otherwise in the distribution of motive-power. (Communicated by Henry Louis Felix Worms de Romilly.)
CLARK, WILLIAM - - -	1524	20th May 1862	Paddle and other hydraulic wheels. (Communicated by Mr. Auguste Chesneau.)
CLARK, WILLIAM - - -	1563	23rd May 1862	A new manufacture of socks and stockings. (Communicated by Mr. Jean Jacques Maurer.)
CLARK, WILLIAM - - -	1572	26th May 1862	Improvements in the manufacture of buttons and in the mode of fastening the same. (Communicated by Mr. Henry Dupont.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	1587	27th May 1862	Brakes for railroad carriages. (Communicated by Augustine Irel Ambler, Roseline Nancy Ambler, and Warrick Martin.)
CLARK, WILLIAM - - -	1620	29th May 1862	An improved method of throwing the shuttles of looms. (Communicated by Jean Henry Casal.)
CLARK, WILLIAM - - -	1794	17th June 1862	Improvements in the manufacture of buttons and in apparatus for the same. (Communicated by Pierre Denis Haute-cloque.)
CLARK, WILLIAM - - -	1802	19th June 1862	Improvements in the manufacture of that kind of boxes known as dry goods boxes.
CLARK, WILLIAM - - -	1858	24th June 1862	Improvements in hernial and other orthopedic apparatus and in pessaries and other instruments. (Communicated by Pierre Ferdinand Leplanquais.)
CLARK, WILLIAM - - -	1862	25th June 1862	Ploughs. (Communicated by Mr. Célestin Peltier, junior.)
CLARK, WILLIAM - - -	1871	25th June 1862	An improved frame for holding photographic pictures. (Communicated by Mr. Gustave Jeanne-Julien.)
CLARK, WILLIAM - - -	1872	25th June 1862	Apparatus for raising the nap on cloth and other fabrics. (Communicated by Mr. Jules Stanislas Manchon.)
CLARK, WILLIAM - - -	2075	21st July 1862	An improved pomade or balsam. (Communicated by Mr. Achille Barborin.)
CLARK, WILLIAM - - -	2097	23rd July 1862	Manufacture of manure. (Communicated by Mr. Alfred François Mosselman.)
CLARK, WILLIAM - - -	2108	24th July 1862	Machinery for the manufacture of fishing and other nets. (Communicated by Messrs. Felix Marie Baudouin and Achille Baudouin and Jean Baptiste François Jouannin.)
CLARK, WILLIAM - - -	2114	25th July 1862	An improved apparatus for decanting wine. (Communicated by Mr. Joseph Nicolas Montain Liéard.)
CLARK, WILLIAM - - -	2116	25th July 1862	Improvements in rafts or structures applicable for the ordinary purposes of marine and inland navigation as also for saving life in cases of shipwreck or otherwise. (Communicated by Messrs. Louis François Rojare and Louis Charles Edouard Rojare.)
CLARK, WILLIAM - - -	2123	26th July 1862	Improvements in obtaining or extracting silver from ores and other bodies and in apparatus for the same. (Communicated by Messrs. Charles Edouard Auguste Vattier and Alfred Joseph Gustave Beecourt.)
CLARK, WILLIAM - - -	2165	30th July 1862	Gas burners. (Communicated by Mr. Jean Jouvet.)
CLARK, WILLIAM - - -	2199	5th Aug. 1862	Improvements in the purification of water and in apparatus employed therein. (Communicated by Mr. Maurice Laschi.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	2216	7th Aug. 1862	Improvements in the rig, spars and sails of ships and other vessels. (Communicated by Mr. Barton Ricketson.)
CLARK, WILLIAM - - -	2225	8th Aug. 1862	Signalling. (Communicated by Pierre Henri Stanislas Comat D'Escayrac de Lauture.)
CLARK, WILLIAM - - -	2242	11th Aug. 1862	An improved carriage for conveying sugar moulds in sugar refineries. (Communicated by Mr. Theodore Augustus Havemeyer.)
CLARK, WILLIAM - - -	2421	1st Sept. 1862	Improvements in the means of obtaining light and heat and in apparatus for the same. (Communicated by Mr. Maria Joseph Alphonse Mille.)
CLARK, WILLIAM - - -	2439	3rd Sept. 1862	Musical instruments. (Communicated by Mr. Auguste Buffet, jun.)
CLARK, WILLIAM - - -	2446	4th Sept. 1862	Manufacture of a blue colouring matter. (Communicated by Charles Philippe Collin.)
CLARK, WILLIAM - - -	2502	11th Sept. 1862	Cigar and cigarette cases. (Communicated by Mr. Joseph Schoenfeld.)
CLARK, WILLIAM - - -	2542	16th Sept. 1862	Improvements in the treatment of peat and peat tar for the production or manufacture of various products and in apparatus for the same. (Communicated by Mr. Leopold Eugène Lavigne.)
CLARK, WILLIAM - - -	2602	24th Sept. 1862	Signalling. (Communicated by Pierre Henri Stanislas Comat D'Escayrac de Lauture.)
CLARK, WILLIAM - - -	2672	3rd Oct. 1862	Improved atmospheric toy pistols and guns. (Communicated by Mr. Laurent Mairé René Péan.)
CLARK, WILLIAM - - -	2673	3rd Oct. 1862	An improved candlestick. (Communicated by Messrs. Louis Gabriel Eugène Isabey and Anthony Montalba.)
CLARK, WILLIAM - - -	2688	4th Oct. 1862	Improvements in the means of preserving goods from fire and in apparatus for the same. (Communicated by Mr. Paulin Gay.)
CLARK, WILLIAM - - -	2697	6th Oct. 1862	Improvements in articles of clothing. (Communicated by Paul Baudet.)
CLARK, WILLIAM - - -	2817	18th Oct. 1862	Apparatus for dredging. (Communicated by Léon Jean Emile Dupont.)
CLARK, WILLIAM - - -	2855	23rd Oct. 1862	Sewing-machines. (Communicated by Messrs. Dwight Tracy and George Hobbs.)
CLARK, WILLIAM - - -	2877	25th Oct. 1862	Construction of the joints of cast iron gas and water mains and other pipes. (Communicated by Richard Chester Robbins, Jesse Moore Kean, and Henry Lamson Case.)
CLARK, WILLIAM - - -	2912	29th Oct. 1862	Apparatus for ascertaining and recording the speed and distance travelled by vehicles, the flow and quantity of water and other analogous purposes. (Communicated by Mr. Pierre Pradel.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	2913	29th Oct. 1862.	Improvements in the treatment of copper ores and in apparatus for the same. (Communicated by Frédéric Le Clerc.)
CLARK, WILLIAM - - -	2969	3rd Nov. 1862	Improvements in castors and in the manufacture of the same. (Communicated by Madame Ursule Antoinette Chapelon Burdet and Auguste Pinaire.)
CLARK, WILLIAM - - -	3011	7th Nov. 1862	Means of utilising refuse and azoted matters of commerce. (Communicated by Messrs. Amédée Gelis and Lucien Dusart.)
CLARK, WILLIAM - - -	3145	22nd Nov. 1862	Candle lamps. (Communicated by Edmond Armand Louis d'Argy.)
CLARK, WILLIAM - - -	3150	24th Nov. 1862	Means of obtaining a vacuum or partial vacuum as applied in the manufacture of paper. (Communicated by Désiré Mathurin Legat.)
CLARK, WILLIAM - - -	3184	27th Nov. 1862	Preservation of animal and vegetable substances. (Communicated by Henri de Lapparent.)
CLARK, WILLIAM - - -	3185	27th Nov. 1862	Gas burners. (Communicated by Louis Joseph Frédéric Margueritte.)
CLARK, WILLIAM - - -	3193	28th Nov. 1862	Permanent way of railways. (Communicated by Jules Vautherin.)
CLARK, WILLIAM - - -	3204	29th Nov. 1862	An improved machine for cutting corks for stoppers. (Communicated by John Denison Crocker.)
CLARK, WILLIAM - - -	3220	1st Dec. 1862	An improved apparatus applicable as a pump, water meter, hydraulic motor, or a steam-engine. (Communicated by William Foster and Robert Foster.)
CLARK, WILLIAM - - -	3298	9th Dec. 1862	Photographic apparatus. (Communicated by Jean Baptiste Sabatier-Blot.)
CLARK, WILLIAM - - -	3315	10th Dec. 1862	Umbrellas. (Communicated by Mr. Jean Degivry.)
CLARK, WILLIAM - - -	3380	17th Dec. 1862	Holders for lamps, candles and other lights. (Communicated by Messrs. Louis Gabriel Eugène Isabey Marnie and Anthony Montalba.)
CLARK, WILLIAM - - -	3439	24th Dec. 1862	Improvements in the means of applying heat to the feet in boots, shoes and otherwise, part of which improvements is applicable to other heating purposes. (Communicated by Jean Marie Bibet Emile Léger and Antoine Faury.)
CLARK, WILLIAM - - -	3452	26th Dec. 1862	Fire-arms. (Communicated by Philippe Antoine Mathieu and Jules Felix Gévelot.)
CLARK, WILLIAM - - -	3479	30th Dec. 1862	Governing-apparatus. (Communicated by Mr. Léon Foucault.)
CLARK, WILLIAM - - -	3486	31st Dec. 1862	Improvements in the arrangement of the parts of railway trains and in the application of power for their propulsion. (Communicated by Jean Jacques Meyer and Adolphe Meyer.)

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ALPHABETICAL INDEX OF PATENTEEES

[Cle]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARKE, CHARLES, GEORGE, [junior.]	2832	21st Oct. 1862	Garden shears.
CLARKE, EDWIN FRANCIS -	1158	21st April 1862	Propellers for steam ships and other vessels.
CLARKE, JOHN - - -	809	24th March 1862	An improvement or improvements in carriage axles.
CLARKE, JOHN - - -	1348	6th May 1862	Looms for weaving.
CLARKE, JOHN GOFFE - -	2106	24th July 1862	Scythes.
CLARKE, THOMAS CHARLES -	6	1st Jan. 1862	Improvements in the construction of apparatus for heating and circulating water and other liquids.
CLARKE, WILLIAM - - -	874	29th March 1862	Apparatus for casting.
CLAUS, CHARLES FREDERICK -	3243	3rd Dec. 1862	Improvements in carboy hampers and in the machinery or other means used for manufacturing the same.
CLAVEL, PIERRE - - -	2718	8th Oct. 1862	Treatment of violet colours derived from coal tar oils.
CLAY, WILLIAM WILLIAMS -	2039	16th July 1862	Improvements in knitting-machinery and in apparatus connected therewith.
CLAYTON, JOHN - - -	3384	18th Dec. 1862	Improvements in reverberatory furnaces for heating large masses of iron and steel, and in economising the waste heat of the said furnaces.
CLAYTON, THOMAS - - -	230	29th Jan. 1862	An improved flyer.
CLAYTON, THOMAS - - -	2966	3rd Nov. 1862	Improvements in machinery or apparatus for obtaining light, heat and ventilation, parts of which improvements are also applicable to other purposes.
CLEGG, JOHN SCHOFIELD -	3073	15th Nov. 1862	Certain improvements in carding-engines.
CLEGG, THOMAS - - -	3301	9th Dec. 1862	Machinery or apparatus for preparing cotton or other fibrous materials to be spun.
CLELAND, WILLIAM - - -	113	15th Jan. 1862	Improvements in treating and utilizing certain materials used and products obtained in the manufacture of gas, and in apparatus connected with the said treatment.
CLEMENT, ERNEST - - -	1073	14th April 1862	Reaping and mowing machines. (Patented by Richard Archibald Brooman.)
CLEMENT, JEAN ANTOINE -	1128	17th April 1862	Taps and valves. (Patented by Richard Archibald Brooman.)
CLÉMENT, PAUL EUGÈNE -	1160	21st April 1862	An improvement in horse shoes. (Patented by Frederick Tolhausen.)
CLEMENTS, JAMES MOORE -	901	31st March 1862	Certain improvements in sewing-machines for performing the various kinds of work necessary in stitching button and eyelet-hole working, embroidery and sewing generally.
CLEMENTS, THOMAS - - -	2338	21st Aug. 1862	Construction of a self-acting lubricator for lubricating various parts of steam-engines.
CLERC, FRÉDÉRIC LE - - -	2913	29th Oct. 1862	Improvements in the treatment of copper ores, and in apparatus for the same. (Patented by William Clark.)
CLERCQ, AUGUSTUS HERVEY [DE.]	1173	22nd April 1862	Pistons for steam-engines. (Patented by George Scoville.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLEUET, VICTORIN FLORENTIN	2821	19th Aug. 1862	An improved self-acting apparatus for supplying boilers with water, applicable also to the raising and to the measuring of liquids.
CLEVER, JOHN - - -	2837	21st Oct. 1862	Manufacture of cement.
CLIFF, JOHN - - -	524	26th Feb. 1862	Improvements in glazing stoneware, red clay ware, porcelain and other kinds of earthenware.
CLIFF, JOHN - - -	1255	29th April 1862	Improvements in insulators for supporting telegraph wires.
CLINTOCK, RICHARD Mc -	3278	6th Dec. 1862	Carriage axles.
CLINTON, JOHN - - -	886	31st March 1862	Flutes.
CLISSOLD, WILLIAM - -	828	25th March 1862	Carding-engines.
CLISSOLD, WILLIAM - -	2103	24th July 1862	An improved mode of manufacturing cylinders.
CLOUGH, GEORGE ALFRED -	2860	23rd Oct. 1862	Power hammers.
CLOUGH, JAMES - - -	2765	14th Oct. 1862	Certain improvements in machinery for driving cotton gins and for preparing and combing cotton and other fibrous substances.
CLOWES, FREDERIC JOSEPH -	3048	12th Nov. 1862	Obtaining rotary motion.
COATHUPE, HENRY BENTINCK	618	7th March 1862	Improvements in the manufacture of clips, hooks and other such like fastenings.
COBLEY, THOMAS - - -	1005	8th April 1862	Improvements in the method of and the apparatus for treating auriferous and argentiferous minerals and ores for the purpose of extracting and separating the gold and silver from the other metals, minerals and substances combined therewith, also in the method of treating the various residues resulting therefrom, and in the utilization, application and use of the said residues when so treated.
COCHRAN, ROBERT - - -	1103	16th April 1862	Improvements in producing ornamental fabrics.
COCHRAN, ROBERT, jr. - -	1103	16th April 1862	Improvements in producing ornamental fabrics.
COCHRANE, CHARLES - -	1883	27th June 1862	Manufacture of aluminate of soda and pot-ash.
COCHRANE, CHARLES - -	1885	27th June 1862	Manufacture of iron.
COCHRANE, The Honorable [WILLIAM ERSKINE.	2014	12th July 1862	Railway fastenings.
COCHRANE, WILLIAM MOR- [SHALL.	2573	19th Sept. 1862	Securing the bolts and nuts of railway fish plates.
COCHRANE, WILLIAM MOR- [SHALL.	2630	26th Sept. 1862	Securing the bolts and nuts of railway fish plates.
COCKROFT, JOHN - - -	2733	10th Oct. 1862	An improved amalgamation of materials forming a substance suitable for printers' blankets, conductors used in paper-making, packings for joints and similar purposes.
CODD, HIRAM - - -	635	8th March 1862	An apparatus for indicating and measuring the flow of liquids.
COE, OSMAN - - -	1744	11th June 1862	Improved machinery for cultivating or harrowing land. (Patented by Joseph Ellicot Holmes.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COEUR, EMILE ADRIEN LE -	1606	28th May 1862	Improvements in circular looms or machinery for the manufacture of looped or knitted fabrics. (Patented by Richard Archibald Brooman.)
COFFEY, JOHN AMBROSE -	2373	27th Aug. 1862	Manufacture of salts of ammonia and other products from the ammoniacal liquors of gas works and animal charcoal works, and in the still or apparatus to be used in such manufacture.
COGENT, LAURENT - - -	3473	30th Dec. 1862	Manufacture of saddles. (Patented by Henri Adrien Bonneville.)
COHEN, ALBERT - - -	1542	22nd May 1862	A new process for the production of designs in relief, and in deepening on sheets of india-rubber of any length whatever. (Patented by Eugene De la Bastida.)
COHEN, ALBERT - - -	1924	2nd July 1862	A new method of manufacturing india-rubber articles by the simultaneous combination of pressure and vulcanisation. (Patented by Eugene de Lebastida.)
COHEN, CHARLES - - -	1600	28th May 1862	Improvements in walking, umbrellas and other like sticks.
COIGNARD, LOUIS - - -	316	6th Feb. 1862	Improvements in obtaining and applying motive-power and raising and forcing fluids, and in apparatus employed therein. (Patented by Michael Henry.)
COINDREAU, CHARLES PROSPER	1069	15th April 1862	Improvements in ornamenting fabrics and other surfaces. (Patented by William Clark.)
COLBURN, ZERAH - - -	2094	23rd July 1862	Apparatus for the condensation of steam in steam-engines.
COLBURN, ZERAH - - -	2145	29th July 1862	Steam pumping engines.
COLE, THOMAS - - -	879	29th March 1862	Improvements in the manufacture of figured ribbons and other textile fabrics.
COLES, ALFRED - - -	711	15th March 1862	Improvements in the construction of trusses for cases of hernia.
COLES, COWPER PHIPPS -	1027	10th April 1862	Masts for ships.
COLES, GEORGE - - -	2193	2nd Aug. 1862	Manufacture of grinding and polishing tools and surfaces.
COLES, RICHARD PIPES -	2449	4th Sept. 1862	Construction of the permanent way of railways.
COLES, WILLIAM - - -	711	15th March 1862	Improvements in the construction of trusses for cases of hernia.
COLLETTE, CELESTINE [ADRIENNE FONTAINE.]	3424	23rd Dec. 1862	A new kind of lace.
COLLIER, GEORGE - - -	929	2nd April 1862	Looms for weaving carpets and other pile fabrics.
COLLIER, GEORGE - - -	1853	24th June 1862	Improvements in means or apparatus for hot pressing, which improvements are also applicable to other heating purposes.
COLLIER, JOHN - - -	929	2nd April 1862	Looms for weaving carpets and other pile fabrics.
COLLIER, MATTHEW - -	242	29th Jan. 1862	Looms for weaving.
COLLIN, ARMAND FRANÇOIS -	1431	12th May 1862	Improvements in portable "tell tale" time-keepers. (Patented by Thomas Buckney.)
COLLIN, CHARLES PHILIPPE -	2446	4th Sept. 1862	Manufacture of a blue colouring matter. (Patented by William Clark.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COLLING, JOHN - - -	974	5th April 1862	Apparatus for reefing ships' sails.
COLLS, FREDERICK WILLIAM -	800	22nd March 1862	Improvements in consuming smoke, and in the apparatus connected therewith.
COLOMB, PHILIP HOWARD -	1360	7th May 1862	Improvements in arrangements and apparatus for signalling.
COLTMAN, FRANCIS - -	1800	18th June 1862	Apparatus for discharging coals, minerals or other substances.
COLTMAN, THOMAS - -	368	12th Feb. 1862	Sewing-machines.
COLWELL, CHARLES - -	2352	22nd Aug. 1862	Apparatus for propelling ships and other vessels.
COLWELL, HENRY - - -	402	15th Feb. 1862	An improved truss for hernia, prolapsus uteri and prolapsus ani.
COMB, JAMES JENNINGS MC -	361	11th Feb. 1862	An improved fastening for securing cotton and other bales or packages.
COMBE, — - - -	1471	15th May 1862	An improved rotative travelling crane. (Patented by James Wright.)
COMBE, — - - -	1472	15th May 1862	Improvements in machinery for digging, excavating and removing earth, gravel and such like substances. (Patented by James Wright.)
COMBE, JAMES - - -	425	17th Feb. 1862	Improvements in machinery for winding cops, and in the treatment of cops for warps and other purposes.
COMBE, JAMES - - -	1152	21st April 1862.	Machinery for hackling flax and other fibrous substances.
COMBE, JOHN - - -	1368	7th May 1862	An improved machine for spreading and drawing into slivers flax, hemp, jute and other fibrous substances.
COMBE, JOHN - - -	2247	11th Aug. 1862	Improvements in the action and arrangement of machines for winding cops, and in apparatus for holding and receiving such cops when used for warps or sewing thread or other purposes.
COMBE, LOUIS - - -	2655	30th Sept. 1862	An improved rotative travelling crane. (Patented by James Wright.)
COMFORT, EBENEZER - -	2118	25th July 1862	Watch protectors.
CONISBEE, WILLIAM - -	582	3rd March 1862	Improvements in colour printing machines for letter-press or block printing.
CONNELL, CHARLES - -	3025	10th Nov. 1862	Constructing ships or vessels.
CONNELL, JAMES EDWARD MC	391	13th Feb. 1862	Improvements in parts of boilers and furnaces for locomotive and other engines.
CONNELL, JAMES EDWARD MC	393	13th Feb. 1862	Improvements in railway breaks and in warming railway carriages.
CONROY, EDWARD - - -	1691	4th June 1862	Improved machinery for cutting corks, bungs and such like articles.
CONROY, EDWARD - - -	1701	5th June 1862	Improved machinery for cutting corks, bungs and such like articles.
CONTE, FELIX LE - - -	2408	30th Aug. 1862	Construction of furnaces for steam-boilers used in sugar mills, distilleries, breweries and other mills or factories.
CONYERS, WILLIAM - -	671	12th March 1862	Currying leather.
COOK, HARRY WHITESIDE -	514	25th Feb. 1862	An improved mode of and apparatus for propelling carriages and vehicles by means of electricity.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COOK, HARRY WHITESIDE -	2383	27th Aug. 1862	Improved apparatus for obtaining motive-power applicable for driving machinery or for other purposes where a motive-power is required.
COOK, HENRY - - -	58	8th Jan. 1862	An improved mode of and apparatus for transmitting despatches and small articles by the agency of electricity. (Communicated by Gaetano Bonelli.)
COOK, HENRY - - -	1550	22nd May 1862	Electric batteries. (Communicated by Professor Jean Minotto.)
COOK, JOHN - - -	2444	4th Sept. 1862	Carriages.
COOK, RICHARD - - -	1848	23rd June 1862	Construction of pianoforte actions.
COOK, SAMUEL - - -	2270	13th Aug. 1862	Looms for weaving.
COOK, THOMAS - - -	276	1st Feb. 1862	Improvements in machinery for punching, cutting and pressing metals and other materials.
COOK, THOMAS - - -	278	1st Feb. 1862	Machinery for folding envelopes.
COOK, THOMAS - - -	2135	28th July 1862	Apparatus employed in the manufacture of envelopes.
COOK, THOMAS - - -	3232	2nd Dec. 1862	Envelope folding machinery.
COOKE, BENJAMIN - - -	1842	5th May 1862	An improved construction of implement for cutting turf.
COOKE, EDWARD - - -	2939	31st Oct. 1862	Construction and ornamentation of metallic bedsteads, couches and children's cots.
COOKE, GRATTAN - - -	2392	28th Aug. 1862	An improved apparatus for securing or fastening doors to prevent robbery or intrusion.
COOKE, JOHN - - -	410	15th Feb. 1862	Method of propelling ships and other vessels.
COOKE, JOHN THOMAS - - -	1406	10th May 1862	Battens used in weaving.
COOKE, JOHN THOMAS - - -	2834	21st Oct. 1862	Battens for weaving.
COOKE, WILLIAM - - -	2915	29th Oct. 1862	Apparatus for ventilating.
COOMBE, BENJAMIN - - -	2217	7th Aug. 1862	Apparatus or machinery for cleaning and decorticating wheat and other grain.
COOPER, JOHN - - -	2267	13th Aug. 1862	Improvements in valves and buckets for pumps and in valves or cocks for other uses.
COPELAND, WILLIAM FOWLER [MOUNTFORD.]	999	8th April 1862	Improvements in the instruments used in the game of croquet. (Patented by John Jaques, junior.)
COPFARD, JOHN - - -	3218	1st Dec. 1862	An appliance or appliances for horse shoes to produce the effect of what is termed roughing.
COPPING, WILLIAM - - -	1355	6th May 1862	Harrowes.
COQUATRIX, JEAN BENJAMIN	1877	26th June 1862	Improvements in weaving carpets, tapestry and similar fabrics, and in apparatus for the same.
CORBET, CHARLES - - -	3339	13th Dec. 1862	Improvements in rails for railways and in the mode of forming the joints of the same.
CORLETT, HENRY LEE - - -	2938	31st Oct. 1862	Construction of tuyeres.
CORNALL, MATTHEW - - -	1996	11th July 1862	Doubling, twisting and reeling threads and yarns of cotton and other fibrous materials.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CORNEILLAN, JEANNE LOUISE HENRIETTE CLÉMENCE COM- [TESSE DE VERNEDE DE.	852	27th March 1862	Improvements in treating open cocoons of silk worms, and in converting the waste resulting therefrom into paper.
CORNELIUS, ROBERT - -	1304	2nd May 1862	Improved electrical apparatus applicable to the lighting of gas. (Patented by Alfred Vincent Newton.)
CORNFORTH, JOHN - - -	183	24th Jan. 1862	New or improved machinery for boring or drilling gun barrels and tubes and other articles having a cylindrical or prismatic figure, which said machinery may also be applied to other like purposes.
CORRADE, JOSEPH - - -	1299	2nd May 1862	Apparatus for superheating steam. (Patented by Richard Archibald Brooman.)
CORRADI, JOSEPH - - -	3109	19th Nov. 1862	Tubular boilers, condensers and superheaters. (Patented by Richard Archibald Brooman.)
CORYTON, JOHN - - -	38	6th Jan. 1862	An improved type machine.
COTELLE, ALPHONSE - -	2062	19th July 1862	Manufacture of alcohol.
COTTAM, EDWARD - - -	320	25th March 1862	Apparatus for steering ships.
COTTAM, GEORGE HALLEN -	592	4th March 1862	Improvements in horticultural buildings and other glazed structures.
COTTAM, HENRY RICHARD -	592	4th March 1862	Improvements in horticultural buildings and other glazed structures.
COTTAM, RICHARD - - -	1328	5th May 1862	Certain improvements in the construction of furnaces for steam-boilers.
COTTER, RICHARD HENRY -	32	4th Jan. 1862	An improved apparatus for instantaneously lighting certain lamps and when desired extinguishing the same.
COTTON, JOSEPH - - -	750	18th March 1862	Improvements in the manufacture of paper from wood and in apparatus used therein. (Patented by Henry Bailly.)
COTTON, MICHEL - - -	750	18th March 1862	Improvements in the manufacture of paper from wood and in apparatus used therein. (Patented by Henry Bailly.)
COUCHOUD, PIERRE RAYMOND	906	1st April 1862	A new or improved loom for manufacturing chenille and other lace-work.
COUGHIN, THOMAS TOWNSEND	2823	20th Oct. 1862	Improvements in apparatus for measuring cloths and other fabrics, parts of which are also applicable to indicating distances travelled by vehicles.
COUPE, JOHN - - - -	2575	19th Sept. 1862	Looms for weaving.
COURTAULD, JOHN MINTON -	739	17th March 1862	Power looms.
COURTENAY, REGINALD - -	2403	29th Aug. 1862	Obtaining motive-power.
COURTILLIER, CHARLES EDMÉ	1777	16th June 1862	Improved inhaling and saturating apparatus.
COURTOIS, MARIE FRANÇOIS [ALEXANDRE.	3457	27th Dec. 1862	Wax or other candles and torches.
COUVREUX - - - -	1471	15th May 1862	An improved rotative travelling crane. (Patented by James Wright.)
COUVREUX - - - -	1472	15th May 1862	Improvements in machinery for digging, excavating and removing earth, gravel and such like substances. (Patented by James Wright.)
COUVREUX, ALPHONSE - -	2029	15th July 1862	An improved centrifugal apparatus for breaking stones.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COUVREUX, ALPHONSE - -	2031	15th July 1862	An improved centrifugal apparatus for casting stones and other materials, and in forming embankments and other structures.
COUVREUX, ALPHONSE - -	2655	30th Sept. 1862	An improved rotative travelling crane. (Patented by James Wright.)
COVENTRY, ARTHUR - -	401	14th Feb. 1862	Improvements in and applicable to lathes for turning and cutting screws.
COVENTRY, ARTHUR - -	859	27th March 1862	Improvements in and applicable to lathes and machines for turning and for cutting screws.
COWAN, BENJAMIN FRANKLIN	2445	4th Sept. 1862	Cannon and other fire-arms.
COWAN, PHINEAS - - -	3266	5th Dec. 1862	An improved method of purifying gas.
COWAN, THOMAS WILLIAM -	2525	13th Sept. 1862	Construction of portable or fixed pumps.
COWBURN, THOMAS - - -	553	1st March 1862	Improvements in apparatus for raising and discharging boiling soap and for dividing the same into bars when congealed.
COWLEY, THOMAS - - -	944	3rd April 1862	Improvements in the manufacture of silk pile velvet.
COWPE, JOHN - - -	3407	20th Dec. 1862	Machinery for tearing, breaking up and reducing rags, ropes, waste fabrics and other similar fibrous materials.
COWPER, EDWARD ALFRED -	946	3rd April 1862	Presses for pressing cotton, fibrous materials and hay.
COWPER, EDWARD ALFRED -	2789	15th Oct. 1862	Steam-engines.
COX, EDWARD - - -	697	13th March 1862	An improvement in armour plates for vessels of war. (Patented by William Edward Newton.)
COX, HENRY - - -	1768	14th June 1862	Improvements in churns, partly applicable to washing-machines.
COX, STEPHEN FITCHEW -	2700	6th Oct. 1862	Washing and tanning hides and skins.
COXHEAD, CHARLES JAMES -	1077	15th April 1862	Pianofore actions.
CRABTREE, JAMES - - -	1615	29th May 1862	Looms for weaving.
CRAIG, JAMES - - -	3272	6th Dec. 1862	Apparatus for the manufacture of clay.
CRAIG, MATTHEW - - -	3272	6th Dec. 1862	Apparatus for the manufacture of clay.
CRANSTON, ROBERT - - -	2549	17th Sept. 1862	An improved washing-machine.
CRANSTON, WILLIAM McIN- [TYRE.	511	25th Feb. 1862	Machinery for reaping and mowing. (Partly communicated by Walter Abbott Wood.)
CRANSTON, WILLIAM McIN- [TYRE.	904	31st March 1862	Machinery for cutting corn and other crops. (Communicated by James Smith Thayer.)
CRANSTON, WILLIAM McIN- [TYRE.	2589	22nd Sept. 1862	Machinery for reaping and mowing corn and other crops.
CRAVEN, JOHN - - -	3229	2nd Dec. 1862	Looms for weaving.
CRAVEN, JOSIAH - - -	3229	2nd Dec. 1862	Looms for weaving.
CRAWFORD, GEORGE - - -	1543	22nd May 1862	Musical instruments.
CRAWFORD, HUGH - - -	419	17th Feb. 1862	Looms for weaving.
CRAWFORD, JAMES - - -	419	17th Feb. 1862	Looms for weaving.
CRAWFORD, ROBERT - - -	419	17th Feb. 1862	Looms for weaving.
CRAWLEY, CHARLES EDWARD	2034	15th July 1862	Safety or miners' lamps.
CREASE, EDWARD SMITH -	464	21st Feb. 1862	Improved machinery for drilling, boring or excavating rock or other earthy substances.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CREEKE, CHRISTOPHER CRABB	1165	21st April 1862	Improvements in the construction of drain and other pipes.
CRESSWELL, JOHN - - -	3191	28th Nov. 1862	Construction of hearses and funeral carriages.
CRESTADORO, ANDREA - -	1786	17th June 1862	Improvements in obtaining and applying motive-power from rarefied air and from aeriform fluids.
CRICHTON, ALEXANDER - -	2370	27th Aug. 1862	Looms for weaving ornamental fabrics.
CRICHTON, DAVID - - -	1740	11th June 1862	Looms for weaving.
CRICHTON, DUNCAN - - -	1740	11th June 1862	Looms for weaving.
CRISP, JOSEPH - - -	1933	2nd July 1862	Apparatus for burning American rock oil, paraffine oil, oil of petroleum and other inflammable oils, spirits or essences.
CRISTOFINI, JEAN BAPTIST -	1412	10th May 1862	Improvements in tents.
CRITCHLEY, JOHN - - -	1610	29th May 1862	An improved rib fastener for umbrellas and parasols.
CRITCHLOW, THOMAS - - -	978	5th April 1862	Planing-machines.
CROC, LOUIS - - -	3074	15th Nov. 1862	An improved ink to be used for the purposes of electric telegraphic printing or marking.
CROCKER, JOHN DENISON -	3204	29th Nov. 1862	An improved machine for cutting corks for stoppers. (Patented by William Clark.)
CROFTS, WILLIAM - - -	2065	22nd July 1862	Improvements in the manufacture of fabrics by lace machinery and in the means or apparatus employed therein.
CROLL, ALEXANDER ANGUS -	1691	27th June 1862	Treatment of ammoniacal liquor of gas works.
CROMPTON, JAMES - - -	3201	29th Nov. 1862	Machinery or apparatus for ploughing, harrowing, clearing and drilling land.
CROMPTON, JOHN - - -	1569	26th May 1862	Railway signals.
CROOK, WILLIAM - - -	1739	11th June 1862	Looms for weaving.
CROSBY, CHAUNCEY ORRIN -	448	19th Feb. 1862	Improvements in the manufacture of frills or ruffles, and in the machinery or apparatus employed therein. (Patented by James Willcox.)
CROSBY, JAMES - - -	2632	27th Sept. 1862	Carding-engines.
CROSLAND, JAMES STEAD -	2470	8th Sept. 1862	Manufacture of tubes made of copper and of copper combined with other metals.
CROSS, CHRISTOPHER - -	81	4th Jan. 1862	Improvements in the manufacture of piled fabrics and in machinery or apparatus employed therein.
CROSSDALE, JAMES - - -	1092	15th April 1862	Certain improvements in boots and shoes for ventilating same.
CROSSLEY, CHARLES - - -	2019	14th July 1862	Means or apparatus employed in washing and finishing textile fabrics.
CROSSLEY, JAMES WILLIAM -	1853	24th June 1862	Improvements in means or apparatus for hot-pressing, which improvements are also applicable to other heating purposes.
CROSSLEY, JAMES WILLIAM -	2019	14th July 1862	Means or apparatus employed in washing and finishing textile fabrics.
CROSSLEY, JOHN - - -	2241	11th Aug. 1862	Improvements in means, machinery or apparatus for warping, scouring, sizing, stretching, measuring, cooling, drying and beaming yarns for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CROWTHER, JEREMIAH - -	3354	16th Dec. 1862	Certain improvements in steam-engines and apparatus connected therewith.
CROZET, CLAUDE - - -	219	28th Jan. 1862	Improvements in the construction of looms for weaving. (Patented by Marc Antoine François Menons.)
CROZY, ANTOINE - - -	1128	17th April 1862	Taps and valves. (Patented by Richard Archibald Brooman.)
CUISINIER, JULES FRANÇOIS [JOSEPH.]	2061	19th July 1862	Improvements in revivifying animal black, in apparatus employed therein, and in recovering a product employed in the revivification. (Patented by Richard Archibald Brooman.)
CULLING, CHARLES - -	221	28th Jan. 1862	Fire-arms.
CULLING, CHARLES - -	227	25th March 1862	Fire-arms.
CULLING, CHARLES - -	2210	7th Aug. 1862	Fire-arms.
CUMMING, JOHN - - -	771	19th March 1862	Improvements in the method of and apparatus for distributing and setting up type.
CUNNINGHAM, DAVID - -	1826	20th June 1862	Improvements in applying a new material to be used as a substitute for the "blackening" or other materials employed in casting or moulding metals.
CUNNINGHAM, HENRY DUN- [CAN PRESTON.]	116	15th Jan. 1862	Improvements in means or apparatus for protecting screw propellers from entanglement or being fouled by ropes or other bodies, also improvements in means or apparatus for closing up the screw aperture.
CUNNINGHAM, HENRY DUN- [CAN PRESTON.]	1586	27th May 1862	Anchors.
CUNNINGHAM, HENRY DUN- [CAN PRESTON.]	2710	7th Oct. 1862	Improvements in working the guns and in performing other necessary work on board ships, and in apparatus employed therein.
CUNNINGHAM, JOHN - -	487	24th Feb. 1862	An improved ornamental fabric and improvements in weaving and in jacquard apparatus.
CUNNINGHAM, JOHN - -	688	13th March 1862	An improved ornamental fabric and improvements in weaving and in jacquard apparatus.
CUNNINGHAM, ROBERT - -	487	24th Feb. 1862	An improved ornamental fabric and improvements in weaving and in jacquard apparatus.
CUNNINGHAM, ROBERT - -	688	13th March 1862	An improved ornamental fabric and improvements in weaving and in jacquard apparatus.
CUNNINGHAM, WILLIAM JOHN	1945	4th July 1862	Sewing-machines.
CURLEY, EDWIN AUGUSTUS -	198	25th Jan. 1862	Certain improvements in sewing-machines.
CURTIS, WILLIAM JOSEPH -	784	21st March 1862	An apparatus to ascertain and point out the fares and earnings or receipts of public vehicles and their conductors.
CURTIS, WILLIAM JOSEPH -	1782	16th June 1862	Construction of screw propellers.
CURTIS, WILLIAM JOSEPH -	2290	14th Aug. 1862	An improved mode of and apparatus for ascertaining the fares and earnings of public vehicles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CURTIS, WILLIAM JOSEPH -	2486	6th Sept. 1862	An improved construction of breech-loading cannon.
CUSHMAN, FRANCIS ADAMS -	1547	22nd May 1862	Wringing machines. (Patented by Augustus Bryant Childs.)
CUSTER, CHARLES - - -	3304	9th Dec. 1862	Fire-arms. (Patented by William Edward Newton.)

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DAEHNE, FRIEDRICH WILHELM	275	1st Feb. 1862	Improvements in furnaces used in the manufacture of zinc.
DAFT, THOMAS BARNABAS -	1036	10th April 1862	Coverings for the feet.
DAFT, THOMAS BARNABAS -	2048	17th July 1862	Manufacture of mats and other surfaces where vulcanized india-rubber is employed.
DAFT, THOMAS BARNABAS -	2049	17th July 1862	Manufacture of vulcanized india-rubber thread.
DAGNALL, ELIZA JANE - -	2279	14th Aug. 1862	An improved tray or receptacle adapted for wash-hand stands, for holding tooth-brushes, tooth-powder and nail-brushes.
DAHDAH, SALLOUM - - -	637	10th March 1862	Certain improvements in breech-loading fire-arms. (Patented by Marc Antoine François Menons.)
DAHMS, JOHANN JACOB - -	3292	8th Dec. 1862	Improvements in galvanic apparatus. (Patented by Edward Thomas Hughes.)
DALE, JOHN - - - -	139	18th Jan. 1862	Improvements in the manufacture of gun-powder.
DALHOFF, JÖRGEN BALTHA- [ZAR.	3419	22nd Dec. 1862	Improvements in cutting files and in machinery to be employed for that purpose.
DALLOT, JULES GERMAIN [ALEXANDRE.	1770	14th June 1862	A new portable circular saw.
DALRYMPLE, ALEXANDER -	2675	3rd Oct. 1862	Improvements in the processes of depositing metals by galvanic action either with or without the aid of galvanic batteries, and in the ornamentation of metal surfaces thereby.
DALTON, JOSEPH - - -	3401	19th Dec. 1862	Knitting-machinery.
DANGERFIELD, FREDERICK -	1201	24th April 1862	Lithographic or zincographic presses.
DANIELS, JOSEPH - - -	2082	22nd July 1862	Certain improvements in artificial manure.
DANKS, JOHN RYAN - - -	3174	26th Nov. 1862	Machinery or apparatus for making boot and shoe heel and toe tips, clog irons and other similar articles.
DANKS, JOSHUA - - - -	346	10th Feb. 1862	Improvements in the manufacture of door mats and hearth rugs.
DANKS, JOSHUA - - - -	3064	13th Nov. 1862	Manufacture of brushes, brooms and mats.
DANN, EDWARD ROBERT -	3416	22nd Dec. 1862	Goffering-apparatus.
DARGUE, JOHN - - - -	1070	14th April 1862	Improvements in machinery for preparing and combing wool and other fibrous materials.

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DARLINGTON, GEORGE -	2909	29th Oct. 1862	Manufacture of zinc oxide.
DARLINGTON, JOHN -	1068	14th April 1862	Improvements in the arrangement of marine telegraph wires and cables.
DARLINSON, GEORGE -	1706	6th June 1862	Manufacture of ribbons.
DARVILL, HENRY -	76	10th Jan. 1862	An improved method of hardening chalk for building purposes.
DATICHY, FLORIMOND -	1624	30th May 1862	Improved machinery and process for making pulp for the manufacture of paper and other purposes.
DATICHY, FLORIMOND -	2499	11th Sept. 1862	Steam-engines.
DAVENPORT, HENRY -	1832	21st June 1862	Means or apparatus for the manufacture of loom healds or harness.
DAVENPORT, JOHN -	1832	21st June 1862	Means or apparatus for the manufacture of loom healds or harness.
DAVENPORT, JOSEPH -	202	25th Jan. 1862	An improved lubricating apparatus applicable to pistons.
DAVENPORT, THOMAS -	515	26th Feb. 1862	Improvements in machinery for preparing, spinning and doubling cotton and other fibrous materials.
DAVID, JUSTIN -	1870	25th June 1862	An improved dynamometer for ascertaining the relative strength and elasticity of various kinds of threads and ropes.
DAVIDSON, DAVID -	3399	19th Dec. 1862	Improvements in the construction of telescopes and in the method of arranging and fixing the same in combination with fire-arms, for the purpose of adjusting the aim thereof.
DAVIES, EDWARD -	133	18th Jan. 1862	Apparatus for gauging and cutting soap.
DAVIES, GEORGE -	518	26th Feb. 1862	Improvements in emptying or draining the water from careening docks in maritime ports. (Communicated by Pierre Lucien Fontaine.)
DAVIES, GEORGE -	662	11th March 1862	Improvements in attaching artificial teeth to plates and to each other, and in moulds for forming artificial teeth. (Communicated by Abraham Merritt Asay and Jacob Lambert Asay.)
DAVIES, GEORGE -	733	17th March 1862	Improved apparatus for drawing. (Communicated by Josephin Soulayr.)
DAVIES, GEORGE -	1197	24th April 1862	Improvements in the manufacture of matting and in apparatus for the same.
DAVIES, GEORGE -	1268	30th April 1862	An improved electric apparatus applicable to various useful purposes. (Communicated by François Ferdinand Auguste Achard.)
DAVIES, GEORGE -	1269	30th April 1862	Improvements in the manufacture of nails, screws and other analogous articles in malleable cast iron. (Communicated by Ernest Lambert.)
DAVIES, GEORGE -	1488	16th May 1862	Improvements in the manufacture of ribs for umbrellas and parasols, part of which is applicable to the hardening of strips of steel generally. (Communicated by Richard Augustus Stratton.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAVIES, GEORGE - - -	2337	21st Aug. 1862	Governors for steam-engines. (Communicated by Caldwell Colberson Jenkins and Frederick Jumelle.)
DAVIES, GEORGE - - -	2365	26th Aug. 1862	Improved machines for washing skeins of cotton, linen, wool or silk. (Communicated by Alexandre Marie Fortuné Tulpin.)
DAVIES, GEORGE - - -	2371	27th Aug. 1862	A machine for singeing woven fabrics of cotton, wool or silk, by means of gas or alcohol. (Communicated by Alexandre Marie Fortuné Tulpin.)
DAVIES, GEORGE - - -	2475	8th Sept. 1862	Railway signals. (Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.)
DAVIES, GEORGE - - -	2805	17th Oct. 1862	Improvements in rotary engines, rotary pumps, and rotary blowing machines.
DAVIES, GEORGE - - -	3036	11th Nov. 1862	Construction of crinoline skirts. (Communicated by Henri Alexandre.)
DAVIES, GEORGE - - -	3062	13th Nov. 1862	Preserving provisions. (Communicated by Alfred Henry Rémond.)
DAVIES, JOHN TAYLOR - -	1212	25th April 1862	Circuit horse powers. (Communicated by Stuart Perry.)
DAVIES, JONAH - - -	2805	17th Oct. 1862	Improvements in rotary engines, rotary pumps, and rotary blowing machines.
DAVIES, WILLIAM - - -	249	30th Jan. 1862	Apparatus for cutting corks and bungs.
DAVIES, WILLIAM - - -	1012	9th April 1862	Improvements in puddling, balling and reheating furnaces.
DAVIN, FREDERIC - - -	2787	15th Oct. 1862	Improvements in felting-machines, applicable also to the fulling, scouring and dressing of pure and mixed woollen stuffs. (Patented by Richard Archibald Brooman.)
DAVIS, EDMUND FRANCIS -	14	1st Jan. 1862	Gas burners.
DAVIS, EDWARD JOHN - -	1811	19th June 1862	Treating and preparing food for horses and other animals.
DAVIS, FRANCIS - - -	570	1st March 1862	Apparatus for supplying feed water to steam-boilers.
DAVIS, JOHN - - -	798	22nd March 1862	Wind musical instruments.
DAVIS, JOHN - - -	2398	29th Aug. 1862	Manufacture of spoons, forks and similar articles. (Communicated by Florian Grosjean.)
DAVIS, JOHN WHITMORE -	570	1st March 1862	Apparatus for supplying feed water to steam-boilers.
DAVIS, LEWIS - - -	495	24th Feb. 1862	An improvement in the production or manufacture of gas for lighting and heating.
DAVIS, NATHAN - - -	1728	10th June 1862	An improved propeller for ships or vessels.
DAVIS, WILLIAM - - -	444	19th Feb. 1862	Improvements in increasing the illuminating effect of coal gas and other gases.
DAVISON, ROBERT - - -	1498	17th May 1862	Machines for washing and cleansing casks.
DAVISON, THOMAS - - -	384	13th Feb. 1862	Improved means for preventing the corroding of steam-boilers.
DAVISON, THOMAS - - -	2948	31st Oct. 1862	Railway-breaks.
DAVY, THOMAS - - -	2072	21st July 1862	Manufacture of gunpowder and explosive compounds.
DAW, GEORGE HENRY - -	1594	27th May 1862	Fire-arms.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAWES, WILLIAM - - -	426	18th Feb. 1862	Improvements in the method of and apparatus for securing the ends of steel or other materials used for crinolines.
DAY, CHARLES ARTHUR -	2057	18th July 1862	Sheer legs.
DAY, HORACE HOLISTER -	2186	1st Aug. 1862	Improvements in projectiles for ordnance and small arms, and in the wads or sabôts to be used therewith. (Patented by William Edward Newton.)
D'ARGENCE, PIERRE NOS -	1801	18th June 1862	Electrical brushes. (Patented by William Edward Newton.)
D'ARGY, EDMOND ARMAND [LOUIS.	3145	22nd Nov. 1862	Candle lamps. (Patented by William Clark.)
D'AUBREVILLE, LÉOPOLD -	1389	9th May 1862	Improvements in metallic cross sleepers for railways. (Communicated by Mr. Pierre Quantin.)
DE BARBEZIÈRES, SUBLIME [NAPOLÉON DE LA HAYE.	721	15th March 1862	An improved construction of horse shoe.
DE BARY, JULIUS - - -	854	27th March 1862	Machinery for the manufacture of cigars. (Patented by Robert De Bary.)
DE BARY, ROBERT - - -	854	27th March 1862	Machinery for the manufacture of cigars. (Communicated by Julius De Bary.)
DE BASSANO, MANUEL LUIS [GODOY PRINCE.	3211	29th Nov. 1862	Manufacture of leather. (Patented by Michael Henry.)
DE BERGUE, CHARLES - -	1556	23rd May 1862	Improvements in machinery or apparatus for the manufacture of metal reeds for weaving.
DE BERGUE, CHARLES - -	1567	26th May 1862	Improvements in iron framing applicable to supporting coverings or surfaces intended to resist blows or pressure.
DE BERGUE, CHARLES - -	2780	15th Oct. 1862	Apparatus for the crushing and treatment of ores.
DE BERGUE, CHARLES - -	2781	15th Oct. 1862	Permanent way of railways.
DE BERGUE, CHARLES - -	3143	22nd Nov. 1862	Machinery or apparatus for the manufacture of metal reeds for weaving.
DE BERLY, JACQUES HENRI [CHARLES.	1172	22nd April 1862	Apparatus for propelling and manœuvring ships. (Patented by John Henry Johnson.)
DE BERVILLE, CHARLES VIC- [TOR FOURNIER.	1359	7th May 1862	An improved safety coupling bar for locomotives and other railway carriages.
DE BOISSEROLLE, ALEXANDRE [JOSEPH AURELE HENRY.	262	31st Jan. 1862	Certain improvements in treating fatty and oily matters for obtaining their acidification, and in the apparatus employed therein.
DE BOUTTEVILLE, FRANÇOIS [DELAMARE, Jr.	231	29th Jan. 1862	Improvements in machinery applicable to the spinning of fibrous substances.
DE BRAME, JOHN ANDREW -	853	27th March 1862	Improvements in machinery for preparing, combing and dressing vegetable fibres. (Patented by Richard Archibald Broome.)
DE CABRIÈRES, FRANÇOIS MARIE GUSTAVE RAYMOND, [BARON DE ROVERIE.	2676	3rd Oct. 1862	An improved marquetry or veneer saw, and machinery or apparatus connected therewith. (Patented by William Edward Gedge.)
DE CHODZKO, NAPOLÉON [FÉLIX BORUKO.	689	13th March 1862	Improvements in furnaces for consuming smoke. (Patented by Edward Thomas Hughes.)
DE CLERCO, AUGUSTUS HER- [VEY.	1173	22nd April 1862	Pistons for steam-engines. (Patented by George Scoville.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE CORNEILLAN, JEANNE LOUISE HENRIETTE CLÉ- MENCE COMTESSE DE VER- [NEDE.	852	27th March 1862	Improvements in treating open cocoons of silkworms, and in converting the waste resulting therefrom into paper.
DE ERLANGER, FRÉDÉRIC [ÉMILE.	1859	25th June 1862	Steam-boiler furnaces. (Patented by Marc Antoine François Mennois.)
DE FLEURY, EUGÈNE - -	3417	22nd Dec. 1862	Stoves or apparatus for heating and drying. (Patented by Richard Archibald Brooman.)
DE GABRIAC, VICTOR AMÉDÉE	2501	11th Sept. 1862	Implements for cultivating the soil. (Patented by Richard Archibald Brooman.)
DE GARRE, HENRY - -	2013	12th July 1862	Rolling iron, steel and other metals for cutlery tools and other purposes.
DE HAMEL - - - -	1938	3rd July 1862	Construction of mechanical horses. (Patented by George Henry Birkbeck.)
DE LA BASTIDA, EUGÈNE -	1542	22nd May 1862	A new process for the production of designs in relieve, and in deepening on sheets of india-rubber of any length whatever (Communicated by Messrs. Albert Cohen and Charles Vaillant.)
DE LA BASTIDA, EUGENIO -	2566	19th Sept. 1862	An improved cover for chimneys adapted to prevent them from smoking and to facilitate the extinguishing of fires therein. (Communicated by Mr. Auguste Louis Cesar de Montagu.)
DE LA BROUSSE, CHARLES AMÉ- [DÉE DE LAIRE.	1806	28th May 1862	Improvements in circular looms or machinery for the manufacture of looped or knitted fabrics. (Patented by Richard Archibald Brooman.)
DE LA PEYROUSE, LÉO - -	830	26th March 1862	Improvements in the preservation of animal substances.
DE LA PEYROUSE, LEO - -	1385	8th May 1862	Improvements in treating neutral and acid fatty or oily substances, resins and resinous substances and compounds or products containing paraffine.
DE LA RUE, THOMAS - -	2235	9th Aug. 1862	Manufacture of pigments and writing inks.
DE LA VALETTE, JEAN AN- [TOINE ALEXIS CAMBON.	2006	12th July 1862	Certain improvements in vessels mounted as floating batteries. (Patented by Marc Antoine François Mennois.)
DE LACOMBE, FRANÇOIS HENRY [MARIE CÔME DAMIENS [CHEVALIER DE FENIS.	2212	7th Aug. 1862	Means of lighting towns or other localities, and of ventilating, warming and providing the same with water.
DE LAFARGE, JEAN JACQUES [LEOPOLD ROUSSEAU.	2598	23rd Sept. 1862	Photographic apparatus. (Patented by Richard Archibald Brooman.)
DE LAPPARENT, HENRI - -	328	7th Feb. 1862	Improvements in preserving timber, which are particularly applicable to the timbers of ships or other maritime structures. (Patented by William Clark.)
DE LAPPARENT, HENRI - -	3184	27th Nov. 1862	Preservation of animal and vegetable substances. (Patented by William Clark.)
DE LAUTURE, PIERRE HENRI [STANISLAS COURT [D'ESCAYRAC.	2225	8th Aug. 1862	Signalling. (Patented by William Clark.)
DE LAUTURE, PIERRE HENRI [STANISLAS COURT [D'ESCAYRAC.	2602	24th Sept. 1862	Signalling. (Patented by William Clark.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE LEBASTIDA, EUGÈNE -	1924	2nd July 1862	A new method of manufacturing india-rubber articles by the simultaneous combination of pressure and vulcanisation. (Communicated by Messrs. Albert Cohen and Charles Vaillant.)
DE MAKLAKOFF, NICHOLAS -	1074	14th April 1862	Improvements in carriages for transporting loads on railways, common roads and other surfaces. (Patented by Richard Archibald Brooman.)
DE MONTAGU, AUGUSTE LOUIS [CESAR.	2566	19th Sept. 1862	An improved cover for chimneys adapted to prevent them from smoking and to facilitate the extinguishing of fires therein. (Patented by Eugenio de la Bastida.)
DE NORMANDY, ALPHONSE [RENÉ LE MIRE.	70	10th Jan. 1862	An improved method of fixing tubes in tube plates.
DE NORMANDY, ALPHONSE [RENÉ LE MIRE.	664	12th March 1862	An improved method of connecting gas and other pipes.
DE PONCINS, The Marquis EM- [MANUEL.	2614	25th Sept. 1862	An improved steam cultivator. (Patented by Frederick Tolhausen.)
DE RIDDER, GUSTAVE JOSEPH [NICOLAS.	225	28th Jan. 1862	Improvements in railway carriages for the conveyance of travellers and goods.
DE RINDAC, FRANÇOIS - -	2415	1st Sept. 1862	Apparatus for washing the felts of paper-making machines. (Patented by William Edward Gedge.)
DE ROMILLY, HENRY LOUIS [FELIX WORMS.	1443	13th May 1862	Improvements in apparatus for generating motion in fluids, applicable for raising and forcing water, propelling and otherwise in the distribution of motive-power. (Patented by William Clark.)
DE RUOLZ, HENRI CATHERINE [CAMILLE.	1127	17th April 1862	Improvements in the manufacture and production of certain alloys containing cadmium. (Patented by Charles Denton Abel.)
DE SOURDEVAL, ALFRED LA- [LOUËL.	349	10th Feb. 1862	Improvements in refining cast iron, wrought and other malleable iron, and in the cementation of iron. (Patented by William Clark.)
DE SOURDEVAL, ALFRED LA- [LOUËL.	936	2nd April 1862	Improvements in the manufacture of carbonic acid. (Patented by William Clark.)
DE VEYE, THEODORE VICOMTE	1642	31st May 1862	A coating intended to protect iron from rust and to preserve wood, cloth, paper and pasteboard used for packing or roofing.
DE VILLENEUVE, THÉODORE [CHAMPIÈRE.	2748	11th Oct. 1862	Improvements in evaporating-apparatus applicable to the manufacture of sugar. (Patented by Alfred Vincent Newton.)
DE WAROQUIER, JEAN LOUIS -	2993	5th Nov. 1862	Commodore or waterclosets. (Patented by Richard Archibald Brooman.)
DE WAROQUIER, JEAN LOUIS -	2994	5th Nov. 1862	Taps or cocks. (Patented by Richard Archibald Brooman.)
DE WIART, ADRIEN CARTON -	1372	7th May 1862	An improved method of preventing the destructive effects of vibration or jar on the permanent way of railways and on the wheels, axle-trees and other parts of carriages, and the working and other parts of machinery liable to shocks.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE WYLDÉ FÉDOR - - -	3375	17th Dec. 1862	Improved means for the protection and preservation of lead surfaces exposed to the action of water, and for the protection of such surfaces from decomposition by atmospheric action. (Communicated by Professor Dr. Henry Schwarz.)
DEACON, CHARLES - - -	3138	21st Nov. 1862	Improvements in tops, caps and wind guards for chimneys, and in apparatus for cleaning the same.
DEACON, HENRY - - -	1030	10th April 1862	Improvements in the manufacture of caustic soda.
DEACON, HENRY - - -	1455	14th May 1862	Improvements in the manufacture and production of certain colours and in the apparatus employed therein.
DEACON, SOLOMON - - -	3138	21st Nov. 1862	Improvements in tops, caps and wind guards for chimneys, and in apparatus for cleaning the same.
DEANE, JOHN, jr. - - -	626	8th March 1862	Revolving fire-arms.
DEATH, EPHRAIM - - -	1705	6th June 1862	Improvements in road locomotives or traction engines.
DEBRIEU, JEAN BAPTISTE -	1133	17th April 1862	Improvements in the manufacture of railway rails. (Patented by William Clark.)
DEFRASNE, JEAN BAPTISTE -	2973	3rd Nov. 1862	Machinery for moulding and compressing artificial fuel, peat, bricks, tiles and other substances. (Patented by Richard Archibald Brooman.)
DEFRIES, COLEMAN - - -	3368	17th Dec. 1862	Manufacture or construction of lamps.
DEFRIES, MOSS - - -	3058	13th Nov. 1862	Manufacture or construction of lamps.
DEGENER, FREDERIC OTTO -	1579	26th May 1862	Printing-machinery. (Patented by Joseph Ellicott Holmes.)
DEGIVRY, JEAN - - -	3315	10th Dec. 1862	Umbrellas. (Patented by William Clark.)
DELAFOND, PIERRE ANTOINE -	1299	2nd May 1862	Apparatus for superheating steam. (Patented by Richard Archibald Brooman.)
DELAFOND, PIERRE ANTOINE -	3109	19th Nov. 1862	Tubular boilers, condensers and superheaters. (Patented by Richard Archibald Brooman.)
DELANY, JOSEPH FRANCIS -	3195	28th Nov. 1862	Double cylinder expansive steam-engines.
DELAUNE, ALFRED - - -	760	18th March 1862	Improvements in the manufacture of barytes and barytic products, and the application of these substances in the manufacture of sugar and other uses. (Patented by Richard Archibald Brooman.)
DELCAMBRE, ADRIEN - - -	3210	29th Nov. 1862	Apparatus used for warming railway carriages. (Patented by Richard Kyrke Penson.)
DELF, FREDERICK DANIEL -	3253	4th Dec. 1862	Improved means and apparatus whereby petroleum and other oils and hydro-carbons can be safely carried and stored.
DELMAS, FLORENTIN - - -	2795	16th Oct. 1862	A rain absorber.
DELOSME, JULES HIPPOLYTE [JEAN BAPTISTE.]	1230	26th April 1862	Improvements in collars, wristbands and cuffs. (Patented by William Clark.)
DELPECH, JEAN ANDRÉ CÉCILE [NESTOR.]	1574	26th May 1862	Pumps.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DELRIEU, JEAN BAPTISTE -	2641	29th Sept. 1862	An improved furnace for casting steel. (Patented by William Edward Gedge.)
DELRUE, ALEXANDER - -	2257	12th Aug. 1862	Compositions for preventing and removing incrustation in boilers.
DELVART, VALENTIN - -	2674	3rd Oct. 1862	An improved suction and lift pump and apparatus connected therewith. (Patented by William Edward Gedge.)
DELVIGNE, HENRI GUSTAVE -	1458	14th May 1862	Fire-arms.
DEMBINSKI, GENERAL HENRY	2322	19th Aug. 1862	A motive apparatus and processes proper for giving to it a continuous motion and unlimited strength.
DENIS, ANTOINE - - -	1452	14th May 1862	Improvements in the manufacture of velvets. (Patented by Frederick Tolhausen.)
DENNISON, ROBERT - -	1136	19th April 1862	Reaping and mowing machines.
DENNY, ABRAHAM - -	2194	4th Aug. 1862	Manufacture of bacon.
DENNY, ARTHUR SILBERT -	2474	8th Sept. 1862	Wringing-machines. (Patented by George Washington Belding.)
DENNY, EDWARD MAYNARD -	2194	4th Aug. 1862	Manufacture of bacon.
DENTON, CHARLES JONES -	3450	24th Dec. 1862	An improvement in the process of revivifying animal charcoal.
DENTON, SAMUEL - - -	1860	25th June 1862	Machinery for spinning or doubling.
DEPREZ, JOSEPH - - -	274	1st Feb. 1862	Machinery or apparatus for extracting coal, ores and other mineral substances from mines.
DERBY, LYMAN - - -	2753	13th Oct. 1862	Improvements in jacks and screw nuts for attaching thills and poles of waggons and other vehicles to the axle-trees of the same. (Patented by George Haseltine.)
DESBOROUGH, SPENDLOVE -	764	19th March 1862	Improvements in the manufacture or construction of sewing and other needles.
DESCOULEUR, LOUIS CASIMIR	2109	24th July 1862	Improvements in apparatus for retarding and stopping carriages, especially applicable to railway carriages, and in disconnecting apparatus for carriages. (Patented by Michael Henry.)
DESCOUTURES, LOUIS MICHEL	2465	6th Sept. 1862	Fire-arms and projectiles. (Patented by John Henry Johnson.)
DESGRANDSCHAMPS, THEO- [PHILE.	1852	24th June 1862	A new mechanism of distribution with motion from the rod, applicable to any kind of steam-engines.
DESHURAND, M. ETIENNE -	1469	15th May 1862	Apparatus for consuming smoke. (Patented by George Henry Birkbeck.)
DETUNCO, JEAN BAPTISTE [THEOPHILE.	1816	20th June 1862	Improved apparatus or machinery for treating flax or hemp.
DEVAUX, JOSEPH CHARLES [THOMAS.	934	2nd April 1862	An improved apparatus for manifold writing. (Patented by William Clark.)
DEVLAN, PATRICK SANSFIELD	2131	28th July 1862	Certain improvements in the manufacture of telegraphic cables.
DEVLAN, PATRICK SANSFIELD	2149	29th July 1862	An improved composition to be employed for covering projectiles and the internal and external surfaces of vessels, which is also applicable to the manufacture of tubing and to other useful and ornamental purposes.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DEVLAN, PATRICK SANSFIELD	2870	24th Oct. 1862	Manufacture of bearings, steps, axle-boxes and other surfaces and appliances or articles subjected to friction.
DEWICK, JOHN - - -	1559	23rd May 1862	Improvements in machinery or apparatus for the manufacture of textile or looped fabrics.
DEWIES, AUGUST CONRAD -	2987	4th Nov. 1862	An improved lubricator.
DÉZÉLU, JACQUES ISIDORE -	1413	10th May 1862	Improvements in lamps and in apparatus for filling lamps with oil or fluid to be consumed. (Patented by William Clark.)
DICKENS, WILLIAM - - -	2033	15th July 1862	Self-acting and hand mules employed in spinning cotton and other fibrous materials.
DICKER, JOHN - - -	1467	15th May 1862	Improvements in apparatus for the delivery of bags or parcels from railway trains in motion.
DICKEY, JULIUS CÉSAR -	128	17th Jan. 1862	An improved quartz crusher.
DICKIN, OSWALD - - -	3357	16th Dec. 1862	An improved table fork.
DICKINSON, GEORGE - - -	2939	31st Oct. 1862	Construction and ornamentation of metallic bedsteads, couches and children's cots.
DICKINSON, JOHN - - -	118	16th Jan. 1862	Improvements in machinery for dressing millstones by means of a diamond cutter. (Patented by John Adams Knight.)
DICKSON, JAMES - - -	340	10th Feb. 1862	Improvements in voltaic apparatus and in the production of voltaic electricity.
DICKSON, JAMES - - -	2044	17th July 1862	Manufacture of caustic soda and carbonate of soda.
DICKSON, JAMES - - -	2101	24th July 1862	Treating copper ores and solutions of copper to obtain copper therefrom.
DICKSON, JAMES - - -	2253	12th Aug. 1862	Treating zinc ores and solutions of zinc to obtain zinc therefrom.
DICKSON, JAMES - - -	2254	12th Aug. 1862	Treating ores and solutions of lead to obtain lead therefrom.
DICKSON, JAMES - - -	2265	13th Aug. 1862	Manufacture of chlorine for commercial purposes.
DICKSON, JAMES - - -	2266	13th Aug. 1862	Obtaining sodium from certain sources of that metal.
DIGNEY, BASTIEN THÉODORE	1960	8th July 1862	Telegraphic apparatus. (Patented by William Spence.)
DIGNEY, JEAN DIDIER - -	1960	8th July 1862	Telegraphic apparatus. (Patented by William Spence.)
DITTMAR, CARL GUSTAV -	1205	24th April 1862	Improved apparatus for obtaining motive-power from the wind. (Patented by Thomas Woodhouse Ashby.)
DIXEY, LEWIS - - -	2582	20th Sept. 1862	A new or improved method of tinting by lithographic printing, photographic portraits and back grounds, and embossing the same.
DIXON, ADAM - - -	169	23rd Jan. 1862	A new apparatus for warming and drying boots, shoes or slippers, which apparatus is also applicable for racking or storing boots, shoes or slippers for exhibition or otherwise.
DIXON, ADAM - - -	1163	21st April 1862	Knife and fork cleaning machines.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DIXON, ADAM - - -	2356	23rd Aug. 1862	Improvements in brooms and brushes, and in the mode of fastening brooms, brushes and mops to their handles or stales (or stails).
DIXON, EDWIN - - -	2626	26th Sept. 1862	Improvements in machinery and furnaces used in the manufacture of welded iron tubes.
DIXON, JAMES WILLIS, junior	2168	30th July 1862	Coffee urns.
DIXON, RUFUS E. - - -	1249	29th April 1862	A smoker's pipe and tobacco pouch.
DIXON, THOMAS OGDEN -	1942	3rd July 1862	Improvements in means or apparatus for heating or warming rooms or buildings with steam and in carrying off the condensed steam or water therefrom.
DOBLER, ADOLPHE - - -	1864	25th June 1862	An improved lock or locking apparatus. (Patented by Frederick Tolhausen.)
DOBSON, WILLIAM - - -	2595	23rd Sept. 1862	A new method of producing various colours on lace or other fabrics.
DOBSON, WILLIAM - - -	3045	12th Nov. 1862	Apparatus used in dressing lace or other fabrics.
DOBSON, WILLIAM - - -	3087	17th Nov. 1862	Improvements in lace dressing frames employed in the dressing of lace or other fabrics.
DODD, THOMAS - - -	407	15th Feb. 1862	Improvements in the construction and arrangement of apparatus for regulating the flow or passage of fluids.
DODD, THOMAS - - -	1905	30th June 1862	Taps for controlling the flow or passage of fluids.
DODDS, MATTHEW - - -	557	1st March 1862	Improvements in machinery for moulding, forming or shaping articles of iron or other malleable metals, and for shearing or cutting such metals.
DODGE, JOHN - - -	258	31st Jan. 1862	Improvements in C springs for carriages when used without a perch.
DODGEON, JOHN - - -	1808	19th June 1862	Looms for weaving.
DODGEON, JOHN - - -	3347	15th Dec. 1862	Looms for weaving.
DODSON, ARTHUR JOHN -	397	14th Feb. 1862	An improved composition for coating, covering or protecting ships' bottoms, applicable also for coating or covering railway sleepers, telegraphic wires and other surfaces, and likewise as a cement, and as a substitute for metal for certain constructive purposes.
DÖEBLER, CARL - - -	271	1st Feb. 1862	Improvements in æolian harps.
DONALD, HUGH - - -	2248	11th Aug. 1862	Machinery for shearing, punching and riveting metals.
DONALD, HUGH - - -	2859	23rd Oct. 1862	Machinery or apparatus for bending or straightening metal plates.
DONBAVAND, WILLIAM -	1740	11th June 1862	Looms for weaving.
DONKIN, BRYAN - - -	2659	1st Oct. 1862	Improvements in bearings for shafts, axles, pivots and sliding surfaces, for the purpose of diminishing friction. (Communicated by Louis Dominique Girard.)
DONKIN, GEORGE - - -	1912	30th June 1862	Improvements in lears or annealing chambers and apparatus used in annealing glass.
DONNET, BARTHELEMY -	2984	4th Nov. 1862	Improvements in the manufacture of fringes and in machinery employed therein. (Patented by Richard Archibald Brooman.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DONOVAN, RICHARD EDWARD	3279	6th Dec. 1862	Means and apparatus for the prevention of railway accidents.
DOODY, CHARLES - - -	2407	30th Aug. 1862	Braces.
DOREMUS, ROBERT OGDEN -	149	20th Jan. 1862	Making cartridges.
DORNING, WILLIAM JOHN -	318	6th Feb. 1862	Improvements in the construction of hydrostatic presses suitable for packing and compressing cotton and other materials.
DORWIN, JEDEDIAH HUBBELL	1336	8th May 1862	Barometers. (Patented by Nathaniel Thompson.)
DOTHÉE, JACQUES - - -	521	26th Feb. 1862	Improvements in the colouring or dyeing of horse-hair tresses, hats, or ornaments.
DOTTERER, DAVIS HENRY -	240	29th Jan. 1862	Improvements in the boxes for the journals of railroad carriage and other axles. (Patented by William Edward Newton.)
DOUCHAIN, CHARLES PIERRE [ALEXANDRE.]	1289	1st May 1862	Apparatus for letting in or shutting off water or other liquids.
DOUGLAS, JOSEPH - - -	2553	17th Sept. 1862	Improvements in apparatus applicable to close fire-ranges usually termed kitcheners, for the purposes of ventilation.
DOUGLAS, THOMAS - - -	3320	11th Dec. 1862	Manufacture of fire bricks and other articles usually made from fire clay.
DOVE, EDWIN - - - -	1137	19th April 1862	Improvements in matches and fuzes and apparatus for containing and igniting the same.
DOWRY, PAUL AMBROISE -	505	25th Feb. 1862	Tobacco pipes. (Patented by William Clark.)
DRACUP, ROBERT - - -	506	25th Feb. 1862	Improvements in means or apparatus for preparing and combing wool and other fibres.
DRAKE, OLIVER PERRY - -	2026	14th July 1862	A new and useful or improved apparatus for vaporizing and aerating a liquid hydro-carbon to be burned for illumination or for other purposes.
DRAPER, EDWARD - - -	2032	15th July 1862	A new or improved method of strengthening wooden shutters and doors.
DREVELLE, ADOLPHE - - -	1946	4th July 1862	Machinery or apparatus for laying cards or sheets of metal into woven or textile fabrics ready for the press, and also for folding, measuring or stretching the said fabrics, paper and other materials.
DREWETT, EDGAR - - -	1058	12th April 1862	Improvements in bottles and other vessels whereby to separate and retain sediment from their contents.
DREYFOUS, SAMUEL - - -	137	18th Jan. 1862	An improved throstle spinning-frame. (Communicated by Monsieur Charles Leyherr.)
DRUMMOND, GEORGE ALEX- [ANDER.]	445	19th Feb. 1862	Improvements in means or apparatus for re-burning animal charcoal. (Patented by James Paterson.)
DRUMMOND, GEORGE ALEX- [ANDER.]	455	20th Feb. 1862	Improvements in the use of animal charcoal. (Patented by James Paterson.)
DRUMMOND, GEORGE ALEX- [ANDER.]	456	20th Feb. 1862	Improvements in means or apparatus for facilitating the evaporation of saccharine solutions. (Patented by James Paterson.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DRUMMOND, PETER ROBERT -	1211	25th April 1862	A revolving rake for lifting objects from the ground.
DU MOTAY, CYPRIEN MARIE [TESSIÉ.	787	19th March 1862	Improvements in printing and painting upon glass and ceramic wares, and upon metallic and mineral substances, also in the preparation of inks and colors for printing and painting. (Patented by Richard Archibald Brooman.)
DU MOTAY, CYPRIEN MARIE [TESSIÉ.	2771	14th Oct. 1862	Improvements in dressing millstones and in materials employed therein. (Patented by Richard Archibald Brooman.)
DU PASQUIER, HENRI - -	2551	17th Sept. 1862	Watches or time-keepers. (Patented by William Edward Newton.)
DUBREUIL, JEAN BAPTISTE -	2278	13th Aug. 1862	Carts and other vehicles. (Patented by John Henry Johnson.)
DUBREUIL, PIERRE HENRI -	2278	13th Aug. 1862	Carts and other vehicles. (Patented by John Henry Johnson.)
DUCHAMP, PIERRE - - -	431	18th Feb. 1862	Improvements in gas apparatus used for lighting cigars and other tobacco. (Patented by William Clark.)
DUDGEON, ALEXANDER - -	3197	28th Nov. 1862	Improvements in packing for various parts of steam and other engines and machinery.
DUFF, WILLIAM - - -	2126	26th July 1862	Apparatus or means for producing an adjustable pressure on certain parts of machinery.
DUFFUS, JOHN - - -	1591	27th May 1862	Improved apparatus for measuring piece goods or webs.
DUKE, JOSEPH - - -	2837	21st Oct. 1862	Manufacture of cement.
DULLENS, HUGO - - -	2721	9th Oct. 1862	An improved runner and fastening for umbrellas, parasols, sun shades and other like articles.
DUMAS, ALPHONSE - - -	1043	11th April 1862	An improved lamp for lighting mines. (Patented by William Edward Gedge.)
DUMAS, CLAUDE - - -	831	26th March 1862	Improvements in apparatus for cleaning tubes and flues of steam-boilers and similar conduits. (Patented by John Henry Johnson.)
DUMAS, JACQUES - - -	1873	26th June 1862	Regulating or moderating the movement of the keys of pianofortes. (Patented by Edward Thomas Hughes.)
DUMAS, JEAN-ARISTIDE - -	1873	26th June 1862	Regulating or moderating the movement of the keys of pianofortes. (Patented by Edward Thomas Hughes.)
DUMENY, FRANÇOIS - - -	237	29th Jan. 1862	Machinery for puddling metals. (Patented by Richard Archibald Brooman.)
DÜMLER, GABRIEL - - -	2755	13th Oct. 1862	An improved projectile to be used with ordnance or fire-arms of any calibre. (Patented by William Loeder.)
DUNCAN, CHARLES STEWART -	980	7th April 1862	An improved method of and apparatus for ventilating, cooling or suppressing fire in public and private buildings or rooms.
DUNCAN, CHARLES STEWART -	2904	28th Oct. 1862	An improved compound or material for coating or covering metallic and vegetable substances to preserve them from corrosion or decay.
DUNCAN, EMMA LOUISA - -	2464	6th Sept. 1862	Manufacture of splints.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DUNCAN, JAMES - - -	638	10th March 1862	Improvements in the manufacture of vinegar.
DUNLOP, JOHN MACMILLAN -	1922	1st July 1862	Cotton gins.
DUNLOP, ROBERT - - -	124	17th Jan. 1862	Improved means for facilitating calculations.
DUNN, ROBERT - - -	2042	16th July 1862	Improvements in furnaces for steam-boilers and other purposes.
DUNN, THOMAS - - -	751	18th March 1862	Improvements in the construction of bridges, roofs, houses and other structures.
DUNNICLIFF, JOHN DEARMAN	321	6th Feb. 1862	Improvements in the manufacture of lace or net bonnet fronts and other similar articles, and in apparatus used in this manufacture.
DUNNING, WILLIAM HENRY -	3343	13th Dec. 1862	An improved mode of and apparatus for repairing the rails, points, switches and other parts of the permanent way of railways. (Patented by William Edward Newton.)
DUNTZE, JOHN ALEXANDER -	3051	12th Nov. 1862	Improved apparatus for communicating rotary motion to shafts or axles for various purposes. (Communicated by Edward David Ashe.)
DUPARET, AGATHIE DESIRÉE -	520	26th Feb. 1862	Improvements in the ornamentation of tissues.
DUPLAY, ANTOINE - - -	335	8th Feb. 1862	Improvements in the manufacture of the tyres of railway wheels and in apparatus for such purpose. (Patented by Frederick Tolhausen.)
DUPONT, HENRY - - -	1572	26th May 1862	Improvements in the manufacture of buttons and in the mode of fastening the same. (Patented by William Clark.)
DUPONT, LÉON JEAN EMILE -	2817	18th Oct. 1862	Apparatus for dredging. (Patented by William Clark.)
DUPRAT, VICTOR - - -	1121	17th April 1862	An improved machine for making bricks, tiles and the like articles. (Patented by Frederick Tolhausen.)
DUPUCH, JOSEPH GUSTAVE -	1815	20th June 1862	Cocks for regulating the supply of gas.
DUPUY, JEAN THÉODORE -	1888	27th June 1862	A method or methods of preparing paper for the reception of photographic pictures or impressions, in order that the said pictures or impressions may be transferred to and fixed on wood, porcelain and other surfaces. (Patented by Richard Archibald Brooman.)
DUQUESNE, ACHILLE - -	1520	20th May 1862	Improved processes for the conversion of amylaceous matters into saccharine and other useful products. (Patented by Marc Antoine François Mennons.)
DURAND, AUGUSTIN, M.D. -	745	18th March 1862	A new or improved means of arresting headstrong or runaway horses. (Patented by Marc Antoine François Mennons.)
DURAND, CHARLES AUGUSTE [MATHIEU.]	1582	27th May 1862	A new kind of watermill.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DURAND, FRANÇOIS - -	1433	13th May 1862	Improvements in the mode of carrying out submerged and other engineering works. (Patented by John Henry Johnson.)
DURAND, FRANÇOIS - -	2977	4th Nov. 1862	An improved cotton gin.
DURRANT, JAMES - - -	2746	11th Oct. 1862	Improvements in the form and construction of chimney tops or appliances for surmounting chimneys.
DURU, EUGÈNE HIPPOLYTE -	3079	15th Nov. 1862	An improved motive-power engine.
DURY, HENRY - - -	1939	3rd July 1862	An improved manufacture of blue coloring matter. (Patented by William Armand Gilbee.)
DURYEA, WRIGHT - - -	1320	3rd May 1862	An improved method of joining boxes. (Patented by William Edward Newton.)
DUSART, LUCIEN - - -	3011	7th Nov. 1862	Means of utilizing refuse and azoted matters of commerce. (Patented by William Clark.)
DUTTON, EDWARD KENWORTHY	2095	23rd July 1862	Certain improvements in steam-engines.
DUTTON, WILLIAM HENRY -	3448	24th Dec. 1862	An improved construction of skate. (Patented by Alfred Vincent Newton.)
DYSON, ELI - - - -	2440	3rd Sept. 1862	Throstle spinning and doubling machines.
DYSON, GEORGE WALTER -	2400	29th Aug. 1862	Machinery for finishing and polishing circular metal rods, bars and shafts, applicable also to the manufacture of metal tubes and pipes.
DYSON, JOHN - - - -	2570	19th Sept. 1862	Improvements in the formation of boilers to be employed for warming buildings and similar purposes.

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EADS, JAMES - - - -	1653	31st May 1862	Improvements in the construction and operation of shot proof gun towers and the working of the guns therein, for sea vessels, floating harbour defences, forts or land fortifications. (Patented by William Edward Newton.)
EARDLEY, JAMES - - -	2617	25th Sept. 1862	Improvements in pitch pipes or tuning pipes.
EASTBROOK, EDWIN - -	2649	29th Sept. 1862	Shells for war purposes. (Patented by John Henry Johnson.)
EASTERBROOK, JOHN - -	855	27th March 1862	Viccs.
EASTON, JAMES, jr. - -	3033	10th Nov. 1862	Improved machinery for sawing wood.
EASTON, WILLIAM - - -	1912	30th June 1862	Improvements in lears or annealing chambers, and apparatus used in annealing glass.
EASTWOOD, HENRY - - -	2926	30th Oct. 1862	Improvements in boilers and furnaces.
EASTWOOD, JAMES - - -	1509	19th May 1862	Improvements in machinery or apparatus for removing and wringing barks of thread or yarns, and all kinds of fabrics when saturated with liquid.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EASTWOOD, JOHN, junior -	3056	13th Nov. 1862	Machinery or apparatus for combing wool or other fibrous substances.
EASTWOOD, JONATHAN - -	342	10th Feb. 1862	Improvements in machinery or apparatus for preparing wool for dyeing and spinning.
EASTWOOD THOMAS CHARLES	3056	13th Nov. 1862	Machinery or apparatus for combing wool or other fibrous substances.
EATON, HENRY - - -	1596	28th May 1862	Improvements applicable to presses for baling purposes.
EATON, JAMES - - -	914	1st April 1862	Improvements in machinery or apparatus for spinning cotton and other fibrous substances. (Patented by John Henry Johnson.)
EATON, JOHN - - -	2929	30th Oct. 1862	An improvement or improvements in the manufacture of certain kinds of gas burners for illuminating purposes.
EATOUGH, ALFRED -	3431	24th Dec. 1862	Machinery or apparatus for preparing cotton or other fibrous materials to be spun.
EBBUTT, ALFRED CHARLES -	381	13th Feb. 1862	Improvements in reclining, easy and other chairs.
ECKEL, JOHN JORDAN - -	1911	30th June 1862	Improved apparatus for picking or gathering cotton. (Patented by William Edward Newton.)
EDDINGTON, WILLIAM, jr. -	1391	9th May 1862	Improvements in portable grinding, chaff-cutting and corn crushing machinery.
EDDINGTON, WILLIAM, junior	1634	30th May 1862	Apparatus for draining and tilling land.
EDDY, CHARLES WALTER -	2129	28th July 1862	Improvements in the means of impeding the entrance of ships and vessels, and in particular of screw ships, into channels.
EDEN, ALFRED FREDERICK -	3247	3rd Dec. 1862	Apparatus for taking minute photographic pictures and magnified pictures of microscopic objects.
EDGE, JOHN WILLIAM - -	821	25th March 1862	Sights for rifles.
EDGE, WILLIAM CHARLES -	2420	1st Sept. 1862	Improvements in the manufacture of Albert chains and in the mode of securing the same to the vest of the wearer.
EDGE, WILLIAM CHARLES -	2737	10th Oct. 1862	Velocipedes.
EDLESTON, DICKINSON - -	197	25th Jan. 1862	Improvements in means and apparatus for finishing textile and other fabrics.
EDMESTON, THOMAS - - -	1726	10th June 1862	Looms for weaving.
EDMONDS, EZEKIEL - - -	1841	21st June 1862	Improvements in the manufacture of felted articles and fabrics, and in the apparatus employed therein. (Partly communicated by James Wyght.)
EDMONDSON, GEORGE - - -	621	8th March 1862	Washing-machines.
EDMONDSON, JOHN BEEBY -	3111	19th Nov. 1862	Machinery for printing, numbering and dating railway and other tickets.
EDMUNDS, THOMAS - - -	1941	3rd July 1862	Preparing compressed fruits in cakes.
EDWARDS, JOHN - - -	2354	23rd Aug. 1862	Permanent way of railways.
EDWARDS, RICHARD - - -	848	27th March 1862	Improvements in machinery and apparatus for pulverizing, stamping and washing mineral, animal and vegetable substances.
EDWARDS, THOMAS - - -	1093	16th April 1862	Improvements in letter receiving boxes and other like receptacles.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EDWARDS, THOMAS - -	1957	7th July 1862	Improved movement for the indices for gas, water and other fluid meters.
EDWARDS, THOMAS - -	2610	24th Sept. 1862	An improved mode of preparing fibrous materials for spinning.
EFFERTZ, PETER - - -	3303	9th Dec. 1862	Machinery or apparatus for making bricks, tiles, drain pipes and other similar articles.
EICHENBERG, EUGÈNE CACHUS	2972	3rd Nov. 1862	A new method of and apparatus for weaving Indian shawls and other figured tissues.
EISENLOHR, AUGUSTUS - -	3312	10th Dec. 1862	Manufacture or production of blue colours. <i>(Patented by Astley Paston Price.)</i>
ELCE, JOHN - - - -	1656	2nd June 1862	Certain improvements in machinery for spinning, doubling and winding cotton and other fibrous substances.
ELDER, JOHN - - - -	1214	25th April 1862	Steam-engines and boilers.
ELLERBECK, JOSEPH - -	1927	2nd July 1862	Looms for weaving.
ELLIOTT, CHARLES EARP -	1169	22nd April 1862	Improvements in the preparation of dried yeast. <i>(Communicated by Georg Grossberger and Hermann Christian Kurz.)</i>
ELLIOTT, HENRY - - -	2435	3rd Sept. 1862	A new or improved instrument or apparatus for extracting the cases of pin cartridges from breech-loading fire-arms, and for recapping, recharging and closing or turning in the said cartridge cases.
ELLIOTT, JOSEPH WILLIAM -	1933	2nd July 1862	Apparatus for burning American rock oil, paraffine oil, oil of petroleum and other inflammable oils, spirits or essences.
ELLIS, HENRY - - - -	2645	29th Sept. 1862	Improvements in the manufacture of compounds of silica and in the application of certain compounds of silica to mineralize woven fabrics, paper and paper pulp, to harden and preserve stone and cement, in the production of artificial stone and paint, and in the production and glazing of porcelain and such like manufactures.
ELLIS, JAMES - - - -	586	4th March 1862	Improvements in hooks and swivels for fastening chains of all sizes and for other similar purposes.
ELLIS, JOHN - - - -	2138	29th July 1862	Apparatus for washing corn and other grain.
ELLIS, JOHN - - - -	2416	1st Sept. 1862	Corsets.
ELMER, WILLIAM - - -	1651	31st May 1862	Treatment of cloth and other textures, leather or animal tissues, for the purpose of rendering them more durable and impermeable to water and other fluids, and for producing from any firm fibrous texture such as cloth, cotton, woollen or mixed goods, a durable artificial leather. <i>(Patented by William Edward Newton.)</i>
ELTON, THOMAS MARWOOD -	3167	25th Nov. 1862	Improvements in the manufacture of soap and in the machinery employed therein.
EMANUEL, HARRY - - -	713	15th March 1862	An improvement in the manufacture of ornaments for personal wear.

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Eva]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EMERSON, FREDERICK WIL- [LIAM.]	1232	26th April 1862	Improvements in the treatment of fusel oil and for various applications of the same to useful purposes.
EMERY, ALBERT HAMILTON -	2064	19th July 1862	Improvements in ordnance and projectiles for the same. (Patented by William Edward Newton.)
EMERY, HORACE LEEMAN -	2448	4th Sept. 1862	Improved machinery for ginning cotton.
EMERY, HORACE LEEMAN -	2825	20th Oct. 1862	Improvements in propelling machinery actuated by the application of animal power.
EMERY, HORACE LEEMAN -	3212	1st Dec. 1862	Thrashing-machines.
EMERY, SAMUEL ANDERSON -	857	27th March 1862	Improvements in the manufacture of soap.
EMMOTT, THOMAS - - -	131	18th Jan. 1862	Improvements in the manufacture of velvets, velveteens and other similar piled fabrics.
ENDEAN, JOHN - - -	1191	24th April 1862	Cocks, taps and valves.
ENOUT, DENIS ADOLPHE -	2681	4th Oct. 1862	Improved means or apparatus by the use of which pierced or perforated cocoons may be spun. (Patented by William Edward Gedge.)
ENSOM, VERNON FRANCIS -	492	24th Feb. 1862	Improvements in bleaching and dyeing yarn and thread when in the form of cops or otherwise wound.
ENSOR, FRANCIS - - -	2668	3rd Oct. 1862	A new or approved apparatus for regulating the pressure of steam in steam-boilers and for indicating when the water in steam-boilers is too high or too low.
ERHART, CHARLES THÉODORE	690	13th March 1862	An improved apparatus for regulating the pressure of steam in steam-boilers and the combustion in their furnaces.
ERLANGER, FRÉDÉRIC EMILE [DE.]	1859	25th June 1862	Steam-boiler furnaces. (Patented by Marc Antoine François Mençons.)
ERMEN, GODFREY - - -	685	13th March 1862	An improved receptacle or case for the protection of threads of cotton, silk or other fibrous substances when in a "spooled," "balled" or otherwise wound state, or for the reception of "tapes."
ERMEN, GODFREY - - -	1639	31st May 1862	Certain improvements in machinery for spooling and balling sewing threads, silk yarn and other like fibrous materials.
ESCALIER, JOSEPH AUGUSTIN	754	18th March 1862	A new kind of flying top.
ESCAPAT, FRANÇOIS - -	2017	14th July 1862	An improved portable or stationary steam lift and force pump. (Patented by William Edward Gedge.)
ESCHWEGE, HERMANN - -	23	2nd Jan. 1862	Improvements in treating wood and other vegetable spirit.
ESCHWEGE, HERMANN - -	1977	9th July 1862	Purifying wood and other vinegar.
ESSELENS, PROSPER - -	1084	15th April 1862	Improvements in the manufacture of blasting powder. (Patented by Alfred Vincent Newton.)
EVANS, JAMES - - -	1781	16th June 1862	Self-acting mules.
EVANS, ORMROD COFFEEN -	1296	2nd May 1862	A reversible attachment to a shaft or arbor for converting reciprocating rectilinear into rotary motion.
EVANS, ORMROD COFFEEN -	1297	2nd May 1862	An abdominal truss intended for the more perfect support and cure of hernia.

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ALPHABETICAL INDEX OF PATENTEES

[Fal

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EVANS, THOMAS - - -	3203	29th Nov. 1862	Improvements in coverings for the leg and thigh, known as antigrophilos.
EVANS, WARDLE EASTLAND -	2916	29th Oct. 1862	Improvements in apparatus for playing organs, harmoniums, pianos and other similar keyed instruments, and also improvements in reed musical instruments.
EVANS, WILLIAM - - -	1552	22nd May 1862	Improvements in obtaining motive-power by machinery.
EVERS, SVEN VICTOR - - -	1981	9th July 1862	Preparation of beverages. (Partly communicated by John Robert Alsing.)
EVARD, AUGUSTIN - - -	2326	20th Aug. 1862	Improvements in processes and apparatus for extracting the natural wax or fatty matters from wool, hair or other animal or vegetable substances containing the same, and in the application thereof to various useful purposes. (Patented by John Garrett Tongue.)
EVARD, MAXIMILIEN - - -	2379	27th Aug. 1862	Machinery for separating or sorting and washing coal and other minerals. (Patented by Richard Archibald Brcoman.)
EYTRA, JOSEPH - - -	1750	12th June 1862	Apparatus for cutting up and preparing as food or chaff for animals or for any other purpose, straw, hay, corn, stalks, roots and all other similar substances. (Patented by Henry Stockton Firman and William James Williams.)
EYTRA, JOSEPH - - -	1751	12th June 1862	Improvements in lamps more particularly designed for burning paraffine or coal oil and other hydro-carbons of different grades, or any combustible material used for obtaining light. (Patented by Henry Stockton Firman and William James Williams.)

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FABRICOTTI, BERNARDO -	1827	21st June 1862	A polishing and grinding belt formed of leather or other flexible or pliable material having plugs composed of emery or other gritty substance, and a proper cement inserted in it substantially. (Communicated by George Rutger Vanderbilt.)
FACONNET, LEOPOLD - -	976	5th April 1862	A new kind of tiles.
FAGG, GEORGE - - -	915	1st April 1862	Improvements in casting printing types, and in apparatus for rubbing the same.
FAIRBURN, ROBERT - - -	2592	23rd Sept. 1862	Machinery for combing wool or other fibrous substances.
FAIRLESS, JOHN - - -	3441	24th Dec. 1862	Apparatus or machinery for milking cows.
FALCONER, FRANCIS - -	385	13th Feb. 1862	Glasses for lamps.

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Fau]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FALKNER, TRAVERS HARTLEY	2325	19th Aug. 1862	Permanent way of railways.
FANSHAWE, HENRY RICHARD- [SON.]	2580	20th Sept. 1862	Mode and means used in fishing in seas, rivers and other waters.
FANSHAWE, JOHN AMERICUS -	755	18th March 1862	Improvements in the construction of elastic surface rollers.
FANSHAWE, JOHN AMERICUS -	2193	2nd Aug. 1862	Manufacture of grinding and polishing tools and surfaces.
FARJON, LOUIS ALEXANDRE -	2443	3rd Sept. 1862	Improvements in stoppers for bottles, jars, guns, tubes and other open mouthed articles, in taps, and in fixing them in casks and other vessels. (Patented by Peter John Bossard.)
FARLANE, THOMAS DUNCAN [Mc.]	399	14th Feb. 1862	Sewing-machines.
FARNSWORTH, EDWARD MIL- [LAR.]	2369	26th Aug. 1862	A novel construction of instrument applicable to the cleaning of windows. (Patented by Alfred Vincent Newton.)
FARNSWORTH, JONAS - - -	2369	26th Aug. 1862	A novel construction of instrument applicable to the cleaning of windows. (Patented by Alfred Vincent Newton.)
FARE, ENOCH - - - -	2954	1st Nov. 1862	An improvement in pianofortes.
FARRA, THOMAS - - - -	1993	10th July 1862	Improvements in wearing-apparel called skirts or petticoats and frocks.
FARRAN, JOHN - - - -	2601	24th Sept. 1862	Certain improvements in looms for weaving.
FARRAR, CHARLES - - - -	3420	22nd Dec. 1862	Machinery or apparatus to be employed in treating certain fibrous materials.
FARRENC, LÉON - - - -	67	9th Jan. 1862	Apparatus for carburetting and burning gas. (Patented by Richard Archibald Brooman.)
FARRENC, LEON - - - -	1453	14th May 1862	An improved method and apparatus for the production of photographic and stereoscopic portraits and pictures. (Patented by Richard Archibald Brooman.)
FARRIMOND, THOMAS - - -	609	7th March 1862	An improved safety cage for mines.
FARRON, SQUIRE - - - -	1008	9th April 1862	Improvements in machinery or apparatus for regulating the supply of steam from the boiler to the cylinder or pipes of steam-engines, which improvements are also applicable to gases or fluids.
FAUCHE, EUGÈNE - - - -	527	26th Feb. 1862	Improvements in the clasps or fastenings of bracelets, neck chains and other articles of jewellery. (Patented by William Clark.)
FAULDING, JOSEPH - - -	3049	12th Nov. 1862	Locomotive engines.
FAURE, LOUIS ADOLPHE -	1262	29th April 1862	Improvements in the construction of mowing and reaping machines. (Patented by William Edward Newton.)
FAURY, ANTOINE - - - -	3439	24th Dec. 1862	Improvements in the means of applying heat to the feet in boots, shoes and otherwise, part of which improvements is applicable to other heating purposes. (Patented by William Clark.)
FAUVEL, LEON - - - -	270	1st Feb. 1862	Improvements in apparatus for indicating the existence of escapes in gas tubing and for stopping the continuance thereof.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FAVIER, JOSEPH DOMINIQUE [ALPHONSE.	184	24th Jan. 1862	Improvements in the manufacture of artificial flowers, leaves and fruit. (Patented by William Clark.)
FAVRICHON, THEODORE AN- [TOINE.	2133	28th July 1862	An apparatus for the speedy and economical heating of baking ovens and also for using their excess of heat.
FAWCETT, JAMES - - -	787	21st March 1862	Improvements in the manufacture of soaps particularly applicable to the scouring, cleansing and fulling of woollen or other cloths.
FAWCETT, JOHN - - -	666	12th March 1862	Certain improvements in the manufacture of cranks and crank axles for locomotive and other engines.
FAWCETT, THOMAS, jr. - -	1394	9th May 1862	Improvements in plaited fabrics for shirt fronts and other uses, and in the mode of and mechanism for manufacturing the same.
FAWCUS, GEORGE - - -	343	10th Feb. 1862	Improvements in uniting iron plates and in uniting and fixing armour plates on ships and other structures.
FAWCUS, GEORGE - - -	2024	14th July 1862	Building boats.
FEAR, WILLIAM, jr. - -	1183	23rd April 1862	Improved arrangements for joining the saw plates of veneer and other saws constructed in segments.
FEARN, THOMAS - - -	2848	22nd Oct. 1862	Manufacture of rods, poles, tubes and other forms employed in the construction of various articles of furniture and for other similar purposes.
FEIS, EDWARD - - -	2578	19th Sept. 1862	Construction of locks, catches or fastenings for purses, bags or other receptacles. (Communicated by Gustav Luttringhaus.)
FELIX, JEAN JOSEPH - -	3255	4th Dec. 1862	An improved press to be used in the manufacture of tiles and bricks. (Patented by Henry Castelbon.)
FELL, ALEXANDER MORRISON	2073	21st July 1862	Obtaining or manufacturing sulphate of ammonia and manure.
FELL, GEORGE - - -	1078	15th April 1862	Improvements in machinery or apparatus to be used in the manufacture of leather.
FELL, WILLIAM ATKINSON -	20	2nd Jan. 1862	Improvements in the manufacture of bobbins and in the means or apparatus employed therein.
FELLOWES, THOMAS - -	1921	1st July 1862	Apparatus for elevating straw and other agricultural produce.
FENNER, REST - - -	1481	16th May 1862	Improved machinery for folding envelopes.
FENTON, HUGH - - -	2238	11th Aug. 1862	Telegraph wires.
FEWTRELL, EDWARD - -	1525	20th May 1862	Improvements in the manufacture of metal tubes and in machinery to be employed for that purpose.
FIELD, BENJAMIN - - -	1784	17th June 1862	Improved machinery for digging or cultivating land. (Patented by Joseph Ellicott Holmes.)
FIELD, CYRUS WEST - -	1784	13th June 1862	An improvement in elongated bullets. (Patented by William Edward Newton.)
FIELD, EDWARD - - -	778	20th March 1862	Improvements in apparatus for regulating the flow of gaseous and other fluids.
FIELD, EDWARD - - -	2956	1st Nov. 1862	Improvements in steam fire-engines, parts of which improvements are applicable also to other purposes.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FIELD, JOHN WILLIAM PARKER	3485	31st Dec. 1862	Breech-loading fire-arms.
FIELD, JOSHUA - - -	2861	23rd Oct. 1862	Steam-engines, condensers and boilers.
FIELDEN, ALFRED HENRY -	1282	30th April 1862	Improvements in show jars, lamps, signals and lighthouses, and other methods of illumination.
FIELDING, ENOCH - -	2844	22nd Oct. 1862	Improvements in the manufacture of healds and in the machinery employed therein.
FIELDING, ROBERT - -	963	4th April 1862	Improvements in valves and in apparatus for lubricating the same and other parts of steam-engines.
FIELDING, SAMUEL - -	963	4th April 1862	Improvements in valves and in apparatus for lubricating the same and other parts of steam-engines.
FIELDING, SAMUEL, jr. -	963	4th April 1862	Improvements in valves and in apparatus for lubricating the same and other parts of steam-engines.
FIELDING, THOMAS - -	963	4th April 1862	Improvements in valves and in apparatus for lubricating the same and other parts of steam-engines.
FILLION, LOUIS JOSEPH -	817	24th March 1862	Improvements in the manufacture of cards for jacquard weaving. (Patented by John Stewart.)
FILLUNGER, JOHANN - -	1251	29th April 1862	Arches. (Patented by Edwin Clark.)
FINCHAM, JOHN - - -	1676	3rd June 1862	An arrangement or arrangements of mechanism useful for facilitating the repairing of roads and ways, also applicable to the tilling of land.
FINK, CHARLES - - -	2473	8th Sept. 1862	An improved turbine.
FIRMAN, HENRY STOCKTON -	1421	12th May 1862	Improvements in apparatus for washing and cleansing textile fabrics or raw materials, and for forcing fluids or moisture from the same. (Communicated by James Foster.)
FIRMAN, HENRY STOCKTON -	1750	12th June 1862	Apparatus for cutting up and preparing as food or chaff for animals or for any other purpose, straw, hay, corn, stalks, roots and all other similar substances. (Communicated by Joseph Eysra.)
FIRMAN, HENRY STOCKTON -	1751	12th June 1862	Improvements in lamps more particularly designed for burning paraffine or coal oil and other hydro-carbons of different grades, or any combustible material used for obtaining light. (Communicated by Joseph Eysra.)
FIRMIN, GEORGE JORDAN -	2667	2nd Oct. 1862	Treatment of certain salts of potash and lime.
FIRTH, JAMES - - -	247	30th Jan. 1862	An improvement in finishing mohair cloth.
FIRTH, WILLIAM - - -	434	18th Feb. 1862	Machinery for digging or turning up soil.
FISCHER, JEAN - - -	3129	21st Nov. 1862	An improved elastic fastening for gloves. (Patented by William Edward Gedge.)
FISK, GEORGE HENRY - -	426	18th Feb. 1862	Improvements in the method of and apparatus for securing the ends of steel or other materials used for crinolines.
FISKEN, WILLIAM - - -	1221	25th April 1862	Improved apparatus for cultivating land by means of steam power.
FITTON, EDWARD GERARD -	678	12th March 1862	Machinery for winding yarn or thread on to bobbins or spools.

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FITTON, EDWARD GERRARD -	2418	1st Sept. 1862	Machinery for winding yarn or thread on to bobbins or spools.
FITZMAURICE, The Honble. [WILLIAM EDWARD.]	995	8th April 1862	An improved construction of plating for ships' batteries and other structures used for war or other purposes.
FLAMBERMONT, FRANÇOIS JO- [SEPH ERNEST.]	2409	30th Aug. 1862	Machinery or apparatus for manufacturing velvet. (Patented by William Edward Gedge.)
FLEET, BENJAMIN - - -	813	24th March 1862	Apparatus for manufacturing and bottling soda water.
FLEITMANN, THEODOR - -	2483	9th Sept. 1862	Manufacture of copper from copper ores.
FLEMING, JOHN - - -	632	8th March 1862	Machinery for pressing cotton. (Communicated by Alexander Johnstone.)
FLEMING, THOMAS WILLIS -	1761	13th June 1862	Preparing charges for fire-arms.
FLETCHER, FIELDING - -	3118	20th Nov. 1862	Arrangement of a vessel or vessels for the compression of air as applicable to lift or force pumps.
FLETCHER, HENRY - - -	620	8th March 1862	An improved clip for securing the steel or other expanders of crinolines to the suspenders thereof.
FLETCHER, HENRY - - -	686	13th March 1862	Improvements in cleaning and preparing cotton and the machinery used for that purpose.
FLETCHER, HENRY - - -	693	13th March 1862	Improvements in neck ties, scarfs, cravats and collars.
FLETCHER, HENRY - - -	958	4th April 1862	Improvements in valves for hydraulic presses and in apparatus connected therewith for making or pressing blocks or bricks of coal or other material.
FLETCHER, JAMES - - -	1462	15th May 1862	Machinery for rolling, bending and planing metals.
FLETCHER, JOHN - - -	1242	23th April 1862	Improvements in the apparatuses for treating saccharine liquids.
FLETCHER, JOHN, junr. - -	2899	28th Oct. 1862	Machinery for shaping iron and other metals.
FLETCHER, JOHN, junior - -	2924	29th Oct. 1862	Improvements in forming wrought iron wheels and in the tools and apparatus for making the same.
FLETCHER, JOHN, senr. - -	2899	28th Oct. 1862	Machinery for shaping iron and other metals.
FLETCHER, JOHN, senior - -	2924	29th Oct. 1862	Improvements in forming wrought iron wheels and in the tools and apparatus for making the same.
FLETCHER, THOMAS - - -	3168	26th Nov. 1862	Improvements in the construction of rollers, cans, spools and bobbins, and in the machinery employed therein.
FLEURY, EUGENE DE - - -	3417	22nd Dec. 1862	Stoves or apparatus for heating and drying. (Patented by Richard Archibald Brooman.)
FLEURY, VICTOR - - -	1117	17th April 1862	Clocks and other time-keepers.
FLEXEN, STEPHEN - - -	2541	16th Sept. 1862	Apparatus for ventilating railway and other carriages.
FLUDE, ROBERT - - -	2866	24th Oct. 1862	Looms for weaving narrow fabrics.
FLUDE, ROBERT - - -	3217	1st Dec. 1862	Looms for weaving narrow fabrics.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FONDET, JEAN BAPTIST - -	3254	4th Dec. 1862	A hot air apparatus in cast iron or any other metal or substance, consisting of prismatic tubes, to be applied to chimneys with flues and heat conduits. (Patented by Gabriel Lewal.)
FONTAINE, FORTUNE HIPPO- [LYTE.	681	13th March 1862	A process for reproducing photographs, drawings, paintings, and engravings engraved on metal.
FONTAINE, PIERRE LUCIEN -	518	26th Feb. 1862	Improvements in emptying or draining the water from careening docks in maritime ports. (Patented by George Davies.)
FONTENAY, ANSELME LOUIS [MARIE.	1127	17th April 1862	Improvements in the manufacture and production of certain alloys containing cadmium. (Patented by Charles Denton Abel.)
FONTENAY, TONI - - -	795	22nd March 1862	Smoke consuming furnaces.
FOOTMAN, WILLIAM - - -	1623	30th May 1862	Improvements in the treatment and use of sewage and liquid manures, and in reservoirs and pipes to be used therein.
FORBES, ALEXANDER - - -	2708	7th Oct. 1862	Improvements in connecting together parts of vessels formed of tin plate, and in the means or apparatus employed therein.
FORD, ALFRED - - -	1716	9th June 1862	An improved method of protecting beer and other fluids from the direct action of atmospheric air.
FORD, JOHN WILLIAM - - -	1113	16th April 1862	Sewing-machines. (Communicated by Gordon McKay and Robert Henry Mathies.)
FORESTIER, PIERRE LOUIS -	2579	20th Sept. 1862	Photographic albums.
FORSYTH, ALEXANDER - -	267	31st Jan. 1862	Improvements in the manufacture of frames and in tablets used for advertising purposes.
FOSTER, BENJAMIN - - -	47	7th Jan. 1862	Improvements in machinery or apparatus for spinning and doubling wool and other fibrous materials.
FOSTER, BENJAMIN - - -	238	29th Jan. 1862	Improvements in machinery or apparatus for spinning and doubling wool and other fibrous materials.
FOSTER, FREDERICK - - -	2034	15th July 1862	Safety or miners' lamps.
FOSTER, JAMES - - -	1421	12th May 1862	Improvements in apparatus for washing and cleansing textile fabrics or raw materials, and for forcing fluids or moisture from the same. (Patented by Henry Stockton Firman.)
FOSTER, JOHN ROBERT - -	541	27th Feb. 1862	Improvements in the manufacture of bullion fringe or cord.
FOSTER, ROBERT - - -	3220	1st Dec. 1862	An improved apparatus applicable as a pump, water meter, hydraulic motor, or a steam-engine. (Patented by William Clark.)
FOSTER, ROBERT, jr. - - -	482	22nd Feb. 1862	Improvements in the construction of horticultural and other similar buildings or erections.
FOSTER, WILLIAM - - -	3220	1st Dec. 1862	An improved apparatus applicable as a pump, water meter, hydraulic motor, or a steam-engine. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FOUCAULT, LÉON - - -	3479	30th Dec. 1862	Governing apparatus. (Patented by William Clark.)
FOUQUET, JULES - - -	748	18th March 1862	An improved needle-threading apparatus. (Patented by Marc Antoine François Menmons.)
FOURDRINIER, JOSEPH - -	2187	28th July 1862	Apparatus for removing knots from pulp.
FOURNIER, AUGUSTE - -	2080	22nd July 1862	Improvements in the manufacture of easy chairs, seats for railway and other carriages, and other kinds of seats and mattresses.
FOVEAUX, JOSEPH FRANCIS -	3172	26th Nov. 1862	Apparatus for pulverizing or dividing liquids into spray. (Communicated by Amatus Luer.)
FOWLER, JOHN - - -	1318	3rd May 1862	Improvements in engines for hauling agricultural implements.
FOWLER, JOHN - - -	1379	8th May 1862	Apparatus for tilling land by steam power.
FOWLER, JOHN, jr. - - -	612	7th March 1862	Apparatus for cultivating or tilling land.
FOWLER, ROBERT - - -	2229	9th Aug. 1862	An improved manufacture of woven, plaited, knitted and other fabrics.
FOX, SAMUEL - - -	3334	12th Dec. 1862	Improvements in retorts and apparatus employed for the manufacture of gas, and also in purifying gas.
FOX, WILLIAM - - -	1037	10th April 1862	Improvements in the manufacture of brooms and brushes.
FRANCIS, JOHN BLISTON -	2975	4th Nov. 1862	Apparatus for raising and lowering window blinds, maps and other articles, and for retaining them in position.
FRANCIS, WILLIAM - - -	3413	22nd Dec. 1862	Improved apparatus for cutting soap.
FRANÇOIS. ETIENNE SÉBAS- [TIEN.]	1263	29th April 1862	Improvements in apparatus for aerating liquids, and in fastenings for the said apparatus and for other articles. (Patented by Michael Henry.)
FRANKENSTEIN, NATHAN -	890	31st March 1862	Machinery for cutting pointed conical and cylindrical corks. (Communicated by Mr. H. Hubert.)
FRANKLIN, EDMUND JOHN -	2742	11th Oct. 1862	A combined spring tape measure, needle case and pin cushion.
FRAY, CHARLES - - -	2109	24th July 1862	Improvements in apparatus for retarding and stopping carriages especially applicable to railway carriages, and in disconnecting apparatus for carriages. (Patented by Michael Henry.)
FRERLAND, ALEXANDER BANKIER.]	1429	12th May 1862	Improvements in the preparation or treatment of hops.
FREEMANTLE, JOHN - -	3458	27th Dec. 1862	Apparatus for propelling vessels.
FREEMANTLE, SAMUEL - -	3458	27th Dec. 1862	Apparatus for propelling vessels.
FREEZER, JAMES - - -	427	18th Feb. 1862	Ploughs.
FRENCH, JAMES MARTIN -	1067	14th April 1862	Upright pianofortes.
FRENCH, RAYMOND - - -	498	24th Feb. 1862	Improvements in the joints or chairs of the permanent way of railways. (Patented by William Edward Newton.)
FREZON, FRUMENCE NICOLAS	3299	9th Dec. 1862	Treating liquorice root to obtain liquid and solid extracts therefrom. (Patented by Richard Archibald Brooman.)
FRIEDLAENDER, JOSEPH -	450	20th Feb. 1862	Improvements in machinery for scutching, breaking and preparing flax, hemp, jute and other fibrous substances.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FRIEDLEBEN, JEAN CHRIS- [TOPHE.]	2555	17th Sept. 1862	Gas burners. (Patented by John Henry Johnson.)
FRIEDMANN, ALEXANDRE -	1859	25th June 1862	Steam-boiler furnaces. (Patented by Marc Antoine François Mennons.)
FROMONT, LOUIS MATHIEU [HECTOR.]	2209	7th Aug. 1862	An improved self-inking hand stamp. (Patented by Marc Antoine François Mennons.)
FRYER, ALFRED - - -	822	25th March 1862	Improvements in the manufacture of sugar and in separating liquids from sugar and other substances.
FRYER, DANIEL - - -	1021	10th April 1862	Improvements in the method of and apparatus for letting on and cutting off the supply of gas to groups or districts of street and other lamps, from a central point or dépôt.
FRYER, DANIEL - - -	2919	29th Oct. 1862	Improvements in casks, tanks or other receptacles for containing petroleum and other oils or spirits.
FUEHMANN, GUSTAVE - -	1417	12th May 1862	Improvements in melting and boring cast steel barrels applicable to fire-arms and pieces of ordnance. (Communicated by Frederick Lohmann.)
FULLARTON, JOHN ALEXANDER	3008	6th Nov. 1862	Machinery or apparatus for painting or coating hoop iron and other strips, bars, rods or other such articles of metal, wood or other material.
FULLER, JOHN - - -	2815	18th Oct. 1862	Treating india-rubber used on a wire or wires for insulating the same.
FULLER, JOHN WILLIAM -	1462	15th May 1862	Machinery for rolling, bending and planing metals.
FUNNELL, EDWARD - -	1020	10th April 1862	An improved self-acting indicator signal for railways.
FURBER, EDWARD - - -	497	24th Feb. 1862	Improvements in machinery for grinding or reducing quartz, bones, grain and other substances. (Patented by Frederick St. George Smith.)
FUZZARD, WILLIAM - -	3002	5th Nov. 1862	Machinery for surfacing fibrous materials. (Patented by Thomas Brown.)
FYFE, THOMAS - - -	351	11th Feb. 1862	Improvements in knapsacks and in apparatus for supporting them or other similar burdens upon the shoulders.

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GABBOTT, JAMES - - -	233	29th Jan. 1862	Improvements in sizing or dressing yarns or textile materials.
GABLER, LUDWIG - - -	706	14th March 1862	Improvements in manufacturing articles from ivory and bone.
GABRIAC, VICTOR AMÉDÉE DE	2501	11th Sept. 1862	Implements for cultivating the soil. (Patented by Richard Archibald Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GABRIEL, ARNOLD - - -	560	1st March 1862	Improvements in the bases of artificial teeth.
GABRIEL, MAURICE - - -	560	1st March 1862	Improvements in the bases of artificial teeth.
GABRIELLI, ANTONIO - - -	1083	15th April 1862	An improved construction of railway chair. (Patented by Charles Rogers Heap.)
GALL, CHARLES - - -	350	11th Feb. 1862	Machinery for cultivating, ploughing, harrowing or scarifying the land.
GALLACHER, JOHN MCAULAY	1188	23rd April 1862	An improved fertilizing composition. (Patented by William Edward Newton.)
GALLAFENT, DANIEL - - -	299	5th Feb. 1862	Certain improvements in the mode or modes of generating or producing elastic vapours to be used as a motive-power.
GALLAGHER, HENRY - - -	1181	17th April 1862	Improvements in overalls, leggings, or in overboots.
GALLETT, CHARLES - - -	3269	5th Dec. 1862	Improvements in articles of furniture.
GALLI, LEONARDO - - -	2276	13th Aug. 1862	Apparatus for propelling vessels.
GALLIMARD, FÉLIX HILLAIRE	398	14th Feb. 1862	Improvements in mounting and fixing the handles or knobs of doors, furniture and other articles. (Patented by William Clark.)
GALLIS, AUGUST FRIEDRICH -	2752	13th Oct. 1862	A new method of covering street omnibuses and vehicles of every description, for the purpose of sheltering passengers travelling on the top of the same.
GALLOWAY, JOHN - - -	3043	12th Nov. 1862	Machinery or apparatus for cutting, shaping, punching and compressing metals.
GALLOWAY, WILLIAM -	3043	12th Nov. 1862	Machinery or apparatus for cutting, shaping, punching and compressing metals.
GALLOWAY, WILLIAM CHARLES	3437	24th Dec. 1862	Pianofortes.
GAMBLE, WILLIAM SUTTON -	2852	23rd Oct. 1862	An improved salinometer.
GANDON, JEAN PIERRE FELIX	1434	13th May 1862	Improvements in paddle-wheels applied either for propelling steam-boats or as prime movers.
GANNAL, ADOLPHE ANTOINE -	2018	14th July 1862	Certain improvements in the manufacture of bituminous cement.
GARDILANNE, PAUL - - -	292	4th Feb. 1862	Improvements in the manufacture of metallic wire fencing.
GARDNER, HENRY - - -	1126	17th April 1862	Improvements in machinery for breaking and preparing flax and other fibrous substances.
GARDNER, HENRY - - -	3015	8th Nov. 1862	Machinery for treating flax and other fibrous materials preparatory for manufacturing purposes, the said machinery being also applicable for pressing, rolling, grinding, pulverizing or mixing various other substances.
GARDNER, HENRY RICHARD -	298	4th Feb. 1862	Improvements in the manufacture of iron and steel. (Patented by William Edward Newton.)
GARDNER, JOHN - - -	298	4th Feb. 1862	Improvements in the manufacture of iron and steel. (Patented by William Edward Newton.)
GARNETT, JOHN - - -	1042	11th April 1862	Apparatus for washing photographic pictures.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GARNIER, JEAN CLAUDE -	692	13th March 1862	Improvements in apparatuses for measuring and regulating the flow and pressure of gas, parts of which are applicable to hydraulic receivers and to steam generators. (Patented by Richard Archibald Brooman.)
GARNIER, JOHN - - -	1898	28th June 1862	Improvements in ordnance and in projectiles.
GARRS, HENRY DE - - -	2013	12th July 1862	Rolling iron, steel and other metals for cutlery tools and other purposes.
GARSDIE, HENRY - - -	2307	16th Aug. 1862	Machinery or apparatus for marking, etching or engraving on cylindrical and other surfaces.
GARTHWAITE, ROBERT - -	702	14th March 1862	An improved mode or design for providing extra superior or better accommodation in double tenement houses.
GARTON, CHARLES - - -	2434	3rd Sept. 1862	An improved method of applying heat in the manufacture and refining of sugar and in malting, hop drying, brewing, distilling and vinegar making.
GASKELL, JAMES - - -	3380	12th Dec. 1862	Regulating the tension of yarn in the processes of warping, winding, sizing, weaving and other similar purposes.
GASTINNE, LOUIS JULIEN -	2744	11th Oct. 1862	Breech-loading fire-arms. (Patented by Richard Archibald Brooman.)
GATES, GEORGE - - -	1589	27th May 1862	Revolving breech-loading fire-arms. (Patented by George Henry Sanborn.)
GATES, THOMAS - - -	1686	4th June 1862	Refrigerators. (Patented by George Henry Sanborn.)
GAUDET, JEAN MARIE - -	3472	30th Dec. 1862	Improvements in ingot moulds employed in the casting of steel and other metals. (Patented by John Henry Johnson.)
GAULTON, WILLIAM PEEL -	1375	8th May 1862	Improvements in apparatus or machinery for damping and steaming fabrics, part of which improvements are applicable for distributing fluids for other purposes.
GAVILLET, JEAN DANIEL -	1434	13th May 1862	Improvements in paddle-wheels applied either for propelling steam boats or as prime movers.
GAY, PAULIN - - -	2698	4th Oct. 1862	Improvements in the means of preserving goods from fire and in apparatus for the same. (Patented by William Clark.)
GEARY, JAMES MC - - -	1958	7th July 1862	Improvements in the manufacture of gas and the apparatus to be employed for that purpose. (Partly communicated by Mr. Edward Leman Norfolk.)
GEBHARDT, JOHN JAMES [HENRY.	686	8th March 1862	An improved fastening for albums and other books, bags, reticules and other articles. (Communicated by Herr Kugler.)
GEBHARDT, JOHN JAMES [HENRY.	1688	2nd June 1862	An improved fastening for bags, purses and other similar articles. (Communicated by Anton Berg.)
GEBHARDT, JOHN JAMES [HENRY.	2232	9th Aug. 1862	An improved fastening for purses, pocket books, needle books, ladies' companions, instrument cases and other similar articles. (Communicated by Edward Posen.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	18	2nd Jan. 1862	Improved apparatus for roasting coffee. (Communicated by Jean Louis Rivret-Justin.)
GEDGE, WILLIAM EDWARD -	27	3rd Jan. 1862	Apparatus for dressing, cleaning or sifting grain. (Communicated by Louis Appolinaire Haton.)
GEDGE, WILLIAM EDWARD -	93	13th Jan. 1862	Improved means or apparatus for gaining or acquiring motive-power. (Communicated by Hugus Sarrazin.)
GEDGE, WILLIAM EDWARD -	328	7th Feb. 1862	An improved portable thrashing and winnowing machine, and apparatus for working same by horse power. (Communicated by Alexandre François Serrin.)
GEDGE, WILLIAM EDWARD -	729	17th March 1862	Improvements in the manufacture of crinolines. (Communicated by Jules Libert and Company.)
GEDGE, WILLIAM EDWARD -	858	27th March 1862	An apparatus for extinguishing fire. (Communicated by Gabriel Brasseur.)
GEDGE, WILLIAM EDWARD -	1043	11th April 1862	An improved lamp for lighting mines. (Communicated by Alphonse Dumas.)
GEDGE, WILLIAM EDWARD -	1583	27th May 1862	Improvements in the manufacture of wire ropes or cables. (Communicated by Louis Charvet.)
GEDGE, WILLIAM EDWARD -	1817	20th June 1862	Improvements in the manufacture of candlesticks and in machinery or apparatus used in such manufacture. (Communicated by Emmanuel Bazin and Eugene Bazin.)
GEDGE, WILLIAM EDWARD -	1909	30th June 1862	Looms for weaving. (Communicated by Alexandre Lenne Truffaut and Hubert Rimbault.)
GEDGE, WILLIAM EDWARD -	2010	12th July 1862	Manufacture of hats. (Communicated by Pierre St. Spés.)
GEDGE, WILLIAM EDWARD -	2017	14th July 1862	An improved portable or stationary steam lift and force pump. (Communicated by François Escapat.)
GEDGE, WILLIAM EDWARD -	2071	21st July 1862	Improved excavating or boring apparatus. (Communicated by Antoine Trouillet.)
GEDGE, WILLIAM EDWARD -	2084	22nd July 1862	An improved instrument for marking wadded or other stuffs. (Communicated by Alphonse Mestre.)
GEDGE, WILLIAM EDWARD -	2158	30th July 1862	Improved means or apparatus for securing the safety of trains moving on railways. (Communicated by Louis Eugène Jamet and Paul Jamet.)
GEDGE, WILLIAM EDWARD -	2246	11th Aug. 1862	Construction of ladders. (Communicated by Joseph Bomblin.)
GEDGE, WILLIAM EDWARD -	2363	26th Aug. 1862	Stays or corsets. (Communicated by Julie Saliné.)
GEDGE, WILLIAM EDWARD -	2409	30th Aug. 1862	Machinery or apparatus for manufacturing velvet. (Communicated by François Joseph Ernest Flambergmont and Louis Lefebvre.)
GEDGE, WILLIAM EDWARD -	2415	1st Sept. 1862	Apparatus for washing the felts of paper making machines. (Communicated by François de Rindac.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	2629	26th Sept. 1862	Construction of leaden window sashes, casements or glazed coverings or partitions. (Communicated by Joseph Nicolas Montain Liézar and Edmond Edouard Liézar, junior.)
GEDGE, WILLIAM EDWARD -	2641	29th Sept. 1862	An improved furnace for casting steel. (Communicated by Jean Baptiste Delrieu.)
GEDGE, WILLIAM EDWARD -	2674	3rd Oct. 1862	An improved suction and lift-pump and apparatus connected therewith. (Communicated by Valentin Delvart.)
GEDGE, WILLIAM EDWARD -	2676	3rd Oct. 1862	An improved marquetry or veneer saw and machinery or apparatus connected therewith. (Communicated by François Marie Gustave Raymond Baron de Roverie de Cabrières.)
GEDGE, WILLIAM EDWARD -	2681	4th Oct. 1862	Improved means or apparatus by the use of which pierced or perforated cocoons may be spun. (Communicated by Louis Ferdinand Palayer, Jean Hubert Keyen, Denis Adolphe Enout and Joseph Elisée Richard.)
GEDGE, WILLIAM EDWARD -	2616	18th Oct. 1862	Improved apparatus for extracting condensed steam. (Communicated by Gabriel Brasseur.)
GEDGE, WILLIAM EDWARD -	2617	29th Oct. 1862	Improved apparatus in connection with the pans of water-closets. (Communicated by Jacques Germain.)
GEDGE, WILLIAM EDWARD -	2618	29th Oct. 1862	Looms for weaving. (Communicated by Eugene Besge.)
GEDGE, WILLIAM EDWARD -	3004	6th Nov. 1862	An improved lift and force-pump. (Communicated by Joseph Schlessinger and Michel Antoine Westermann.)
GEDGE, WILLIAM EDWARD -	3059	13th Nov. 1862	An improved machine working by compression and expansion of air. (Communicated by Jules Bonnard.)
GEDGE, WILLIAM EDWARD -	3129	21st Nov. 1862	An improved elastic fastening for gloves. (Communicated by Jean Louis Menjuc and Jean Fischer.)
GEDGE, WILLIAM EDWARD -	3140	22nd Nov. 1862	An improved elliptical compass. (Communicated by Pierre Jacques Carmien.)
GEDGE, WILLIAM EDWARD -	3196	29th Nov. 1862	Construction of clocks or timekeepers. (Communicated by Pierre Louis Rabiet.)
GÉLIS, AMÉDÉE - - -	3011	7th Nov. 1862	Means of utilizing refuse and azoted matters of commerce. (Patented by William Clark.)
GEMELLI, PAUL - - -	1445	13th May 1862	An improved means or apparatus for shunting trains. (Patented by Richard Archibald Brooman.)
GEMELLI, PAUL - - -	3063	13th Nov. 1862	An improved means or apparatus for shunting trains. (Patented by Richard Archibald Brooman.)
GENESTAL, EUGÈNE - -	1780	16th June 1862	Construction of presses for extracting liquids from various substances. (Patented by George Henry Birkbeck.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEORGE, BENJAMIN - -	1753	12th June 1862	Construction of portable beds, bolsters, pillows and sofa and other cushions.
GÉRARD, GUSTAVE EUGÈNE [MICHEL.	3415	22nd Dec. 1862	Improvements in the fabrication of threads from vulcanized india-rubber and the apparatus connected therewith.
GERISH, FRANCIS WILLIAM -	165	22nd Jan. 1862	Printing-presses.
GERISH, FRANCIS WILLIAM -	418	17th Feb. 1862	Pumps.
GERLAND, BALTHASAR WIL- [HELM.	1743	11th June 1862	Improvements in the manufacture of sulphate of copper, and in obtaining metals from the material used in such manufacture.
GERMAIN, JACQUES - -	2917	29th Oct. 1862	Improved apparatus in connection with the pans of waterclosets. (Patented by William Edward Gedge.)
GÉVELOT, JULES FÉLIX - -	3452	26th Dec. 1862	Fire-arms. (Patented by William Clark.)
GHISLIN, THOMAS GOULSTON	2035	15th July 1862	Improvements in the treatment or preparation of British and foreign algæ, and the application of the same to various branches of the arts and manufactures.
GHISLIN, THOMAS GOULSTON	2880	25th Oct. 1862	Treatment and utilization of certain foreign plants for the obtaining of useful fibres therefrom.
GHISLIN, THOMAS GOULSTON	3034	10th Nov. 1862	Improvements in the treatment of certain foreign plants and in the application of the fibres derived therefrom.
GIACHOSA, FERNANDO - -	1721	9th June 1862	Ventilating mines, ships' holds and other places.
GIBBINS, JAMES - - -	266	31st Jan. 1862	An improved composition for coating wood, metal and other materials.
GIBSON THOMAS - - -	2948	31st Oct. 1862	Railway breaks.
GIBSON, THOMAS CUMMINGS -	1972	9th July 1862	Construction of ships and vessels for the purpose of carrying and warehousing petroleum, palm oil and other oils or inflammable fluids.
GIBSON, THOMAS CUMMINGS -	3253	4th Dec. 1862	Improved means and apparatus whereby petroleum and other oils and hydrocarbons can be safely carried and stored.
GIERTZ, JOHAN BERNHARD -	2571	19th Sept. 1862	Gas burners or jets.
GIFFARD, PAUL - - -	2931	30th Oct. 1862	Air guns and other air arms.
GILBART, FREDERIC HUGHES -	730	17th March 1862	Improved means or apparatus for raising, lowering and releasing ships' boats or other heavy bodies.
GILBART, FREDERIC HUGHES	894	31st March 1862	An improved hame slip for suddenly releasing horses and other cattle from their harness, also applicable for releasing heavy bodies or weights.
GILBART, FREDERIC HUGHES -	895	31st March 1862	Loading fire-arms.
GILBART, FREDERIC HUGHES -	2640	29th Sept. 1862	Improvements in loading fire-arms and in blasting.
GILBEE, WILLIAM ARMAND -	535	27th Feb. 1862	Improvements in the construction of fire-grates for steam and other boilers and suitable to all kinds of fires. (Communicated by De Vos Verraert.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GILBEE, WILLIAM ARMAND -	1839	3rd July 1862	An improved manufacture of blue coloring matter. (Communicated by Messrs. Prosper Monnet and Henry Dury.)
GILBERT, CHARLES - -	89	13th Jan. 1862	An improvement or improvements in the manufacture of swivels for guns and in machinery to be employed in the said manufacture.
GILBERT, THOMAS - -	89	13th Jan. 1862	An improvement or improvements in the manufacture of swivels for guns and in machinery to be employed in the said manufacture.
GILBEY, ALFRED - - -	1637	31st May 1862	Construction of packing-cases or boxes for holding bottles either full or empty.
GILBEY, ALFRED - - -	1973	9th July 1862	Apparatus for washing and cleansing bottles.
GILCHRIST, JAMES - - -	2662	2nd Oct. 1862	Boring engines such as are used for mining purposes.
GILES, ALFRED - - -	1535	21st May 1862	Improvements in constructing floating breakwaters.
GILL, JAMES WALLER - -	1302	2nd May 1862	Improved apparatus for turning up and pulverizing the soil of land for cultivation.
GILLE, JEAN MARIE - -	1971	9th July 1862	An improved calendar inkstand.
GIMSON, JOSIAH - - -	2866	24th Oct. 1862	Looms for weaving narrow fabrics.
GIRARD, CHARLES FREDERIC	1081	15th April 1862	Improvements in the construction of revolving and repeating fire-arms, part of which invention is also applicable to other arms.
GIRARD, LOUIS DOMINIQUE -	2659	1st Oct. 1862	Improvements in bearings for shafts, axles, pivots and sliding surfaces, for the purpose of diminishing friction. (Patented by Bryan Donkin.)
GIRARDET, CHARLES - -	1476	15th May 1862	An improved construction of buckle.
GIRDLESTONE, JOHN WARD -	187	24th Jan. 1862	Projectiles for fire-arms.
GIRDLESTONE, JOHN WARD -	1454	14th May 1862	Projectiles.
GISBORNE, FREDERIC NEWTON	602	5th March 1862	Improvements in the mode of indicating numerals or letters in railway tickets and other articles by peculiar devices cut therein and in apparatus for effecting the same.
GISBORNE, FREDERIC NEWTON	633	8th March 1862	Improvements in the means of indicating the presence of fire damp or choke damp in mines and of dispersing fire damp, and also of telegraphing in mines.
GISBORNE, FREDERIC NEWTON	1095	16th April 1862	Improvements in the construction of electric targets for rifle and gun practice.
GISBORNE, FREDERIC NEWTON	3434	24th Dec. 1862	Means for indicating the speed of ships at sea.
GJEES, JOHN - - - -	585	4th March 1862	A material or sand for the formation of moulds for casting iron and for other like purposes.
GLADSTONE, ROBERTSON -	799	22nd March 1862	Certain improvements in tilting or tipping waggons.
GLANVILLE, RICHARD - -	2428	2nd Sept. 1862	Marine and other engines.
GLASS, WILLIAM - - -	878	29th March 1862	Improvements in the treatment of sulphuret of antimony and in obtaining products therefrom.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GLASS, WILLIAM - - -	2565	19th Sept. 1862	Improvements in the treatment of sulphuret of antimony and in obtaining products therefrom.
GLEDHILL, HENRY - - -	197	25th Jan. 1862	Improvements in means and apparatus for finishing textile and other fabrics.
GLEW, JOHN HENRY - - -	1759	13th June 1862	Sewing-machines.
GLIDDEN, WILLIAM TAYLOR -	1244	29th April 1862	A new and useful mode of restoring phosphatic guano. (Communicated by Louis Harper.)
GLIER, FERDINAND - - -	1976	9th July 1862	Improvements in concertinas and other wind instruments of that class. (Patented by Charles Frederick William Rust.)
GLOESENER, HENRI - - -	67	9th Jan. 1862	Apparatus for carburetting and burning gas. (Patented by Richard Archibald Brooman.)
GOBERT, LOUIS EDOUARD AU- [GUSTE.	2452	5th Sept. 1862	Mode of applying oil and other fluid lubricating matters to machinery. (Patented by William Edward Bovill.)
GODDARD, CALVIN LUTHER -	1261	29th April 1862	Improvements in machinery for picking, burring and cleaning wool and other fibrous substances. (Patented by William Edward Newton.)
GODDARD, WILLIAM - - -	496	24th Feb. 1862	Improvements in the joints or chairs of the permanent way of railways. (Patented by William Edward Newton.)
GODIN, JEAN BAPTISTE - - -	370	12th Feb. 1862	Improvements in preparing and ornamenting cast iron and other metals in order to fit them for articles of furniture and decoration and other similar uses. (Patented by Richard Archibald Brooman.)
GOGUEL, EUGÈNE ALEXANDRE [FREDERIC.	1917	1st July 1862	Construction of blast-furnaces. (Patented by Richard Archibald Brooman.)
GONDOLO, PAUL - - -	673	12th March 1862	A new or improved baking-oven.
GONEZ, LOUIS - - -	2965	3rd Nov. 1862	A seat or chair forming also a travelling bag for the use of travellers by rail or other way.
GONNON, HENRY - - -	1835	21st June 1862	Improved machinery for making bricks.
GONTARD, CÉLESTIN PHILIPPE	907	1st April 1862	An improved stopping piece for watches and other time-keepers, intended to limit the winding up of the moving spring.
GONTARD, THEOPHILUS -	245	30th Jan. 1862	Improved truss-plates producing an upward pressure.
GOODEN, JOHN - - -	462	21st Feb. 1862	Improvements in machinery or apparatus for stripping or cleaning the flats of carding-engines.
GOODEN, JOHN - - -	2331	20th Aug. 1862	Machinery or apparatus used in the preparation of cotton, wool, flax or other fibrous materials to be spun.
GOODFELLOW, JACOB - - -	2240	11th Aug. 1862	Steam or water engines.
GOODMAN, CHARLES - - -	1687	4th June 1862	Permanent way of railways.
GOODMAN, GEORGE BARRY -	1240	28th April 1862	Machinery or apparatus for preventing accidents in or at mine shafts.
GOODSPEED, ISAAC - - -	3146	22nd Nov. 1862	Machinery for cutting corks. (Patented by Alfred Vincent Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GOODWIN, CHARLES RHODES -	792	21st March 1862	Improvements in sewing-machines, which improvements are also partly applicable to other machinery, for giving a rotating motion always in the same direction. (Patented by William Clark.)
GOODYEAR, FREDERICK -	3003	6th Nov. 1862	A machine for plaiting straw and such like material. (Communicated by Ambrose Claraz.)
GÖRANSSON, FREDRIK GÖRAN	1553	22nd May 1862	Improvements in the construction and arrangement of armour plates applicable to ships, forts, batteries and other structures, and to a mode of securing the same.
GÖRANSSON, GÖRAN FREDRIK	2807	17th Oct. 1862	Manufacture of iron and steel. (Patented by George Tomlinson Bougfield.)
GORE, JOHN CHRISTOPHER -	1507	17th May 1862	Belt shippers.
GORSE, WILLIAM - - -	108	14th Jan. 1862	An improvement or improvements in machinery for manufacturing the cut nails called brads.
GOSS, JAMES - - -	2249	11th Aug. 1862	Apparatus for distillation.
GOSSAGE, WILLAM - -	742	17th March 1862	Improvements in the manufacture of soda and potash.
GOSSAGE, WILLIAM - -	1371	7th May 1862	Certain improved apparatus to be used in the manufacture of soap.
GOSSAGE, WILLIAM - -	2050	18th July 1862	An improved method of and apparatus for decomposing chloride of sodium and chloride of potassium, for the production of compounds of soda and potassa.
GOULDING, WILLIAM - -	3325	11th Dec. 1862	Ploughs.
GOUPY, LOUIS - - -	338	10th Feb. 1862	Improvements in the treatment of coprolites and other fossil phosphates of lime. (Patented by Marc Antoine François Mennons.)
GOUSSARD, ALFRED MARIE [CELESTIN EDGARD.	378	13th Feb. 1862	Improvements in the disinfection of animal excretions and in the extraction therefrom of fertilizing elements for agricultural purposes. (Patented by Marc Antoine François Mennons.)
GRADWELL, WILLIAM JAMES -	1656	2nd June 1862	Certain improvements in machinery for spinning, doubling and winding cotton and other fibrous substances.
GRAEMIGER, ALOISE - -	3052	12th Nov. 1862	Looms.
GRAHAM, DUGALD -	3235	2nd Dec. 1862	Improvements in steering and manœuvring ships or vessels and in the apparatus employed therein.
GRANDCOLLOT, M. LOUIS [POLYDORE.	703	14th March 1862	Improvements in trusses or bandages and in pessaries to be used therewith when required. (Patented by George Henry Birkbeck.)
GRANT, JOHN - - -	719	15th March 1862	Improvements in the construction of portable railways and in the trucks or carriages to be used thereon.
GRANT, JOHN - - -	3250	4th Dec. 1862	Construction of turntables for portable railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GRAY, CARROLL EUGENE -	1662	2nd June 1862	Apparatus for extracting, rendering, receiving, purifying, cooling down and delivering oleaginous and fatty matters or other material treated by steam pressure for extraction.
GRAY, GEORGE - - -	1826	20th June 1862	Improvements in applying a new material to be used as a substitute for the "blackening" or other materials employed in casting or moulding metals.
GRAY, GEORGE - - -	1856	24th June 1862	Manufacture of wheels.
GRAY, GEORGE - - -	3083	15th Nov. 1862	Manufacture of wheels.
GRAY, JAMES - - -	2180	2nd Aug. 1862	Improved arrangements for cleaning ships' bottoms and for preventing the fouling thereof.
GRAY, SOLOMON - - -	375	13th Feb. 1862	Projectiles. (Patented by William Edward Newton.)
GRAY, THOMAS WOOD - -	1090	15th April 1862	Improvements in the manufacture of explosive compounds. (Communicated by Julian John Revy.)
GREAVES, JOHN - - -	1423	12th May 1862	Improvements in machinery for turning, boring, cutting, shaping and reducing wood and other substances applicable for the manufacture of various articles.
GREAVES, WILLIAM - -	1351	6th May 1862	Safety stirrup bars.
GREEN, ALFRED - - -	516	26th Feb. 1862	Improvements in the method of and apparatus for bordering paper, envelopes and cards with black or colored borders.
GREEN, CHARLES EDMOND -	2002	12th July 1862	Breech-loading fire-arms.
GREEN, EDWIN - - -	392	13th Feb. 1862	Certain improvements in buttons for fastening and ornamenting articles of dress.
GREEN, JAMES WILLIAM -	2069	21st July 1862	An improved method of cutting sheet and plate glass to any given design, giving the finished form the brightest polish possible. (Communicated by Carl Heckert.)
GREEN, JOHN - - -	416	15th Feb. 1862	Improvements in the method of and apparatus for signalling, which improvements apply to signals used with steam ploughs or cultivators.
GREEN, JOHN - - -	2002	12th July 1862	Breech-loading fire-arms.
GREEN, JOHN - - -	2030	15th July 1862	Improvements in the method and means of producing signals and in the application of the same particularly to steam ploughs or cultivators.
GREEN, ROBERT ELLIS - -	2733	10th Oct. 1862	An improved amalgamation of materials forming a substance suitable for printers' blankets, conductors used in paper making, packings for joints and similar purposes.
GREEN, THOMAS - - -	1980	9th July 1862	Steam-boilers.
GREENACRE, THOMAS - -	1551	22nd May 1862	Cocks or valves for steam or other fluids.
GREENALL, THOMAS - -	2978	4th Nov. 1862	Sizing or dressing yarns or textile materials.
GREENE, WILLIAM MAXWELL	174	23rd Jan. 1862	Improvements in machinery or apparatus for cleaning coffee, rice or any seed or grain having an outer hull and inner pellicle. (Patented by William Hooper Ropes.)
GREENER, HENRY - - -	2734	10th Oct. 1862	An improved construction of insulator for telegraphic wires.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GREENHALGH, DANIEL - -	420	17th Feb. 1862	Improvements in machinery or apparatus for preparing or combing cotton, wool and other fibrous materials.
GREENHALGH, JAMES - -	1920	1st July 1862	An improved diminishing valve, and also a water or steam escape apparatus to give alarm in case of fire and to assist in quenching the same.
GREENHALGH, JESSE - -	1920	1st July 1862	An improved diminishing valve, and also a water or steam escape apparatus to give alarm in case of fire and to assist in quenching the same.
GREENSTREET, THOMAS [GEORGE.	846	27th March 1862	Window sashes.
GREENWAY, WILLIAM - -	844	27th March 1862	Improvements in the manufacture of bolts for fastening doors and for other like purposes.
GREENWOOD, JOHN - -	295	4th Feb. 1862	Improvements in means or apparatus for preparing and combing wool and other fibres.
GREENWOOD, ROBERT WIL- [LIAM.	2658	1st Oct. 1862	A new and improved mode of using the exhaust steam of steam-engines by re-conveying the same into the boiler.
GREENWOOD, THOMAS - -	593	4th March 1862	Sewing-machines.
GREENWOOD, THOMAS - -	2677	3rd Oct. 1862	Improved machinery for cutting staves.
GREENWOOD, THOMAS - -	2849	22nd Oct. 1862	Machinery for preparing to be spun flax, hemp, tow, silk waste, china grass and other fibrous substances.
GREENWOOD, THOMAS - -	3013	7th Nov. 1862	Mules for spinning and doubling.
GREGOR, PETER Mc - -	1554	23rd May 1862	Certain improvements in machinery for spinning and doubling cotton and other fibrous substances.
GREGORY, FRANCIS - -	2927	30th Oct. 1862	Presses for pressing seeds, fruits, hops and other substances.
GREGORY, JOSEPH - - -	446	19th Feb. 1862	Candlesticks.
GREIG, DAVID - - -	612	7th March 1862	Apparatus for cultivating or tilling land.
GREINER, GEORGE FREDERICK	1387	9th May 1862	Improvements in the construction of piano-fortes.
GRESTY, ROGER - - -	2250	11th Aug. 1862	Scarfs or cravats.
GREVES, EDWIN THOMPSON -	3191	28th Nov. 1862	Construction of hearses and funeral carriages.
GRICE, FREDERIC GROOM -	2762	14th Oct. 1862	An improvement or improvements in the manufacture of nuts for screwed bolts and in machinery to be employed in the said manufacture.
GRICE, JAMES THOMAS - -	1040	11th April 1862	Improvements in the manufacture of twisted metallic tubes.
GRICE, SAMUEL - - -	629	8th March 1862	An improvement or improvements in propellers for propelling ships and boats and other vessels.
GRIFFIN, CALEB - - -	1494	16th May 1862	Improved machinery applicable to the cutting of leather and other like uses. (Patented by Alfred Vincent Newton.)
GRIFFIN, CALEB - - -	1495	16th May 1862	Improved machinery applicable to the cutting out of boot and shoe soles and kindred operations. (Patented by Alfred Vincent Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HABEL, EDWARD - - -	3385	18th Dec. 1862	Certain improvements in machinery or apparatus for preparing, spinning and doubling cotton and other fibrous substances.
HACK, THOMAS - - -	606	6th March 1862	Screw-cocks.
HACKING, GEORGE - - -	2252	12th Aug. 1862	Machinery or apparatus for measuring and registering the flow of water and other fluids.
HACKING, GEORGE - - -	3372	17th Dec. 1862	Machinery or apparatus for measuring and registering the flow of water and other fluids.
HACKING, WILLIAM HENRY -	2270	13th Aug. 1862	Looms for weaving.
HACKNEY, NATHAN - - -	212	27th Jan. 1862	Improvements in purifying slip, glaze and other potters' materials.
HADDAN, JOHN COOPE - - -	488	24th Feb. 1862	Improvements in small arms and in artillery, and in projectiles for artillery.
HADDON, THOMAS - - -	89	13th Jan. 1862	An improvement or improvements in the manufacture of swivels for guns, and in machinery to be employed in the said manufacture.
HADEN, PETER - - -	800	22nd March 1862	Improvements in consuming smoke, and in the apparatus connected therewith.
HADFIELD, CHARLES - - -	3126	21st Nov. 1862	Improvements in compressing or dressing bricks and tiles and other materials, and in machinery or apparatus to be employed for such purposes.
HADFIELD, GEORGE - - -	1702	5th June 1862	Improvements in the manufacture of casks or barrels and in the machinery and apparatus to be used in the construction of the same.
HADFIELD, ROBERT - - -	763	19th March 1862	Hardening and tempering wire and crinoline steel.
HADLEY, SIDNEY HOPTON -	2458	5th Sept. 1862	An improved process for manufacturing gas for illumination.
HADWEN, JOHN WILSON -	1099	16th April 1862	Improvements in the treatment and application of soft silk waste.
HADWEN, JOHN WILSON -	3373	17th Dec. 1862	Machinery or apparatus for spinning, twisting and doubling cotton and other fibrous materials.
HAGAN, WILLIAM ELIJAH -	2056	18th July 1862	Generating heat in furnaces and fireplaces. (Patented by Richard Archibald Brooman.)
HAGEN, DR. RICHARD - - -	288	3rd Feb. 1862	Improvements in processes for preserving and colouring wood, denominated xylochromic and xyloplastic processes. (Patented by William Clark.)
HAGGETT, WILLIAM - - -	1192	24th April 1862	Improvements in locomotive engines and carriages for railways, part of which improvements are applicable to carriages and vehicles for tram and common roads.
HAGUE, SAM - - -	561	1st March 1862	Improvements in machinery or apparatus for raising hammers and stamping with them hot or cold metals.
HAI, WILLIAM GILLUM -	2757	13th Oct. 1862	A new article of apparel to be worn instead of or in addition to a shirt front and waistcoat.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAINES, GEORGE BATTISON -	469	22nd Feb. 1862	An improvement or improvements in the manufacture and ornamentation of metallic bedsteads, part of which is also applicable to other articles.
HAINES, MICHAEL JOHN -	2361	25th Aug. 1862	Manufacture of driving bands or straps.
HALE, ALFRED JOSEPH -	961	4th April 1862	Improvements in instruments for drawing ovals.
HALE, THOMAS FREDERICK -	804	22nd March 1862	Valves.
HALE, WILLIAM -	1220	25th April 1862	Rockets.
HALEY, JOHN JAY -	2082	22nd July 1862	An improved machine for wringing clothing and other woven fabrics. (Partly communicated by William Rhoads.)
HALEY, JOSEPH -	1370	7th May 1862	Improvements in armour plates for ships, boats and batteries.
HALFORD, JOHN -	3176	27th Nov. 1862	Improvements in the preparation and treatment of small coal or slack whereby a certain carbonaceous product is obtained and rendered available for use in the manufacture of iron and steel, in the processes of casting and moulding metals, and in the manufacture of paint and such like articles.
HALL, CHARLES GODFREY -	189	24th Jan. 1862	Improvements in the manufacture of boots, shoes and leggings.
HALL, COLLINSON -	658	11th March 1862	Improvements in implements for breaking up the soil, and in ropes and drums to be employed in the cultivation of the soil by steam.
HALL, EDWARD -	2219	8th Aug. 1862	Means or apparatus for preparing foreign grain for grinding.
HALL, NATHANIEL RICHARD -	2822	20th Oct. 1862	Construction of thermometers.
HALL, THOMAS -	4	1st Jan. 1862	An improved apparatus for removing weeds from canals, rivers and lakes after such weeds have been cut with a chain scythe or other machine or implement applicable to that purpose.
HALL, THOMAS -	2943	31st Oct. 1862	Railway breaks.
HALL, WILLIAM HATHERTON	1671	3rd June 1862	Miners' safety lamps.
HALLIDAY, JOHN -	1584	27th May 1862	Improvements in the manufacture of ornamental trimmings.
HAMEL, DE -	1938	3rd July 1862	Construction of mechanical horses. (Patented by George Henry Birkbeck.)
HAMER, WILLIAM -	463	21st Feb. 1862	Improvements in apparatus employed in the preparation of cotton and other fibrous materials.
HAMILTON, FRANCIS -	2765	14th Oct. 1862	Certain improvements in machinery for driving cotton gins and for preparing and combing cotton and other fibrous substances.
HAMILTON, GEORGE -	723	15th March 1862	Tumbler locks.
HAMILTON, JOHN -	546	28th Feb. 1862	Improvements in machinery or apparatus for the manufacture of bobbins or holders for textile materials.
HAMMOND, ROBERT -	2727	9th Oct. 1862	Armour for ships of war.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAMMOIR, PAUL - - -	1520	20th May 1862	Improved processes for the conversion of amylaceous matters into saccharine and other useful products. (Patented by Marc Antoine François Mennons.)
HAMPSHIRE, JOHN KAYE -	2711	7th Oct. 1862	Improvements in apparatus or machinery for washing coal, coal slack and other mineral substances, and separating foreign particles therefrom.
HAMPSHIRE, JOSEPH KAYE -	1069	14th April 1862	A safety cage with disconnecting catch to prevent accidents in the working of coal or other mines arising from the over winding or breaking of the ropes or other parts used for hoisting purposes.
HAMPSON, JONATHAN ROBERT	3370	17th Dec. 1862	Certain improvements in the method of securing the extremities of the hoops or bands employed in packing bales, and in apparatus connected therewith.
HANCOCK, CHARLES - -	3331	12th Dec. 1862	Certain compounds and substances applicable for electric insulation and other purposes.
HANCOCK, JONATHAN SMITH -	3356	16th Dec. 1862	Anti-garotte knives.
HANCOCK, SAMUEL - -	3356	16th Dec. 1862	Anti-garotte knives.
HAND, JOHN WILLIAM -	2281	14th Aug. 1862	A new or improved rifle-rest.
HANDS, FREDERIC - -	2488	10th Sept. 1862	New or improved compositions for the manufacture of black ornaments such as brooches, bracelets, ear rings, and other ornaments usually made of jet, which said compositions may also be applied to the manufacture of various other articles.
HANKINS, JAMES - - -	216	28th Jan. 1862	A new composition or wash to be applied to marine and other steam-boilers to prevent incrustation.
HANKINS, JAMES - - -	876	29th March 1862	An improved method of removing and preventing incrustation in steam-boilers.
HANSBROW, THOMAS - -	967	4th April 1862	Improvements in pumps for ships' use and other purposes. (Patented by William Edward Newton.)
HARBEN, HENRY - - -	2372	27th Aug. 1862	Manufacture of paper and other productions in which fibrous material is employed.
HARBEN, HENRY - - -	2399	29th Aug. 1862	Manufacture of cotton, cotton fibre and other similar fibrous productions.
HARRY, JAMES BENJAMIN -	236	29th Jan. 1862	An improved method of preserving electric telegraph cables and wires.
HARDING, EDWARD CHARLTON	2407	30th Aug. 1862	Braces.
HARDING, GUSTAVUS PALMER	1029	10th April 1862	Improvements in drawing metals and in the machinery or apparatus employed therein.
HARDING, GUSTAVUS PALMER	3262	5th Dec. 1862	Improvements in drilling, drawing and rolling metals, and in the machinery or apparatus employed therein.
HARDING, JOHN - - -	900	31st March 1862	Improvements in the application of the waste heat arising from coke ovens for heating air for blast furnaces, also for calcining iron stone and other minerals, and for heating and smelting iron.
HARDING, THOMAS RICHARDS	2623	25th Sept. 1862	Machinery for opening, cleansing and carding fibrous material.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARDING, WILLIAM - -	1709	7th June 1862	Improvements in the manufacture of bonnet fronts and in apparatus to be employed therein.
HARDMAN, JOSEPH - -	3484	31st Dec. 1862	Certain improvements in looms for weaving.
HARDMAN, ROBERT - -	3112	19th Nov. 1862	Certain improvements in looms for weaving.
HARGREAVES, JOHN - -	261	31st Jan. 1862	Improvements in the manufacture of pipes or tubes for conveying water, gas, acids, sewage, enclosing electric telegraph wires and for other purposes, which improvements are also applicable to the manufacture of other vessels and articles, and in the machinery or apparatus connected therewith.
HARGREAVES, WILLIAM -	1850	24th June 1862	Machinery or apparatus for combing wool, hair, silk, cotton, flax and other fibrous substances.
HARKES, WILLIAM - - -	2521	13th Sept. 1862	Machinery for mowing and reaping.
HARKNESS, JOHN GILLISON -	2046	17th July 1862	An improved safety handle for winches, cranes and other like machines.
HARLING, THOMAS - - -	1120	17th April 1862	Looms for weaving.
HARLING, WILLIAM - - -	1120	17th April 1862	Looms for weaving.
HAROLD, THOMAS GEORGE -	2796	16th Oct. 1862	Locks.
HARPER, LOUIS - - -	1244	29th April 1862	A new and useful mode of restoring phosphatic guano. (Patented by William Taylor Glidden.)
HARPER, WILLIAM - - -	3042	12th Nov. 1862	Construction of steam-boiler and other furnaces.
HARRATT, CHARLES - - -	1071	14th April 1862	Improvements in the manufacture of masts, yards and booms.
HARRATT, CHARLES - - -	2767	14th Oct. 1862	Ships' masts.
HARRINGTON, JOHN - - -	1267	30th April 1862	An improvement or improvements in mounting photographic portraits for visiting cards, and in mounting photographs in general.
HARRINGTON, ROBERT - - -	2347	22nd Aug. 1862	Improvements in umbrellas and parasols and in the manufacture of parts thereof.
HARRIS, ALFRED - - -	983	7th April 1862	An improvement or improvements in the manufacture of gun barrels.
HARRIS, CHARLES JAMES -	1420	12th May 1862	Improvements in the manufacture of detector season or non-transferable tickets.
HARRIS, JOHN - - -	277	1st Feb. 1862	Improvements in mattresses, squabs, pillows and other like articles of furniture.
HARRIS, JOHN REEVES - -	2719	8th Oct. 1862	Propelling vessels.
HARRIS, JOSIAH - - -	110	14th Jan. 1862	An improved semaphore target marker.
HARRIS, JOSIAH - - -	2735	10th Oct. 1862	An improved construction of propeller.
HARRIS, WILLIAM RANDALL -	2451	5th Sept. 1862	Improvements in self-stripping carding-engines for preparing cotton and other fibrous substances or materials.
HARRISON, ARTHUR HENRY -	415	15th Feb. 1862	An improved under-garment for gentlemen and ladies' wear.
HARRISON, BENJAMIN - -	2364	26th Aug. 1862	Clod crushers.
HARRISON, CHARLES WEIGHT- [MAN.]	208	27th Jan. 1862	Improvements in printing, stamping, embossing, perforating and other like operations, and in the machinery or apparatus employed therein.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARRISON, CHARLES WRIGHT- [MAN.]	3097	18th Nov. 1862	Looms for weaving.
HARRISON, EDWARD - -	305	5th Feb. 1862	A certain compound or certain compounds to be used as a substitute for gun-powder.
HARRISON, JAMES FORTESCUE	1601	28th May 1862	Preserving the bottoms of ships from the attacks of barnacles and other incrustations.
HARRISON, JOHN - - -	1565	26th May 1862	Improvement in the manufacture of rollers for preparing, spinning, doubling, sizing, winding, warping and weaving.
HARRISON, JOHN - - -	1566	26th May 1862	Certain improvements in machinery for winding, sizing and weaving.
HARRISON, JOHN ASHWORTH -	2459	5th Sept. 1862	Apparatus for taking photographic panoramic pictures.
HARRISON, JOHN GEORGE -	108	14th Jan. 1862	Ploughs.
HARRISON, JOSEPH - -	1096	16th April 1862	Improvements in letter receiving boxes and other like receptacles.
HARRISON, JOSEPH - -	1340	5th May 1862	Steam generators. (Patented by John Henry Johnson.)
HARRISON, JOSEPH - -	1422	12th May 1862	Improvements in casting metals and in the moulds and cores employed therein. (Patented by John Henry Johnson.)
HARRISON, JOSEPH - -	2364	26th Aug. 1862	Clod crushers.
HARRISON, THOMAS - -	108	14th Jan. 1862	Ploughs.
HARRISON, WILLIAM - -	1566	26th May 1862	Certain improvements in machinery for winding, sizing and weaving.
HARRISON, WILLIAM CURRIE	922	2nd April 1862	An improved instrument or tool for boring or drilling holes in slate or other rock.
HARROP, JOHN - - -	2669	3rd Oct. 1862	Improvements in deodorizing refuse organic fecal and urinous matters, and in a method of utilizing coal and other ashes, and in machinery or apparatus connected therewith for producing a portable manure therefrom.
HART, EMANUEL BERNARD -	883	29th March 1862	Improved machinery for cutting cork so as to render the same suitable for stuffing purposes. (Communicated by Isachar Zacharie.)
HART, HERBERT WILLIAM -	1234	26th April 1862	Improvements in the manufacture of reflectors and shades for gas and other lights.
HART, HERBERT WILLIAM -	2453	5th Sept. 1862	Argand and other burners.
HART, JOHN MATTHIAS - -	786	21st March 1862	Improvements in means for generating steam.
HARTICAN, WILLIAM - -	1444	13th May 1862	Fire-escape apparatus.
HARTLEY, EDMUND - -	917	1st April 1862	Improvements in rolling or straightening metal spindles, shafts or rods of a cylindrical or tapered form.
HARTLEY, FREDERIC WILLIAM	3178	27th Nov. 1862	Improved means of obtaining certain products resulting from the manufacture and purification of coal gas. (Communicated by George Huwitz.)
HARTLEY, WILLIAM - -	952	4th April 1862	Certain improvements in steam-engines.
HARTSHORN, JAMES - -	1907	30th June 1862	Manufacture of lace.
HARTSHORN, JAMES - -	2472	8th Sept. 1862	Means or apparatus for the manufacture of lace fabrics.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARTSHORNE, GEORGE, jr. -	806	22nd March 1862	Improvements in punching or perforating metal plates or sheets, and in apparatus or machinery to be employed for that purpose.
HARVEY, ALEXANDER, junr. -	2751	13th Oct. 1862	Boring-machinery.
HARVEY, FREDERICK WILLIAM	340 3	20th Dec. 1862	Fitting and connecting rudders to ships and other floating vessels.
HARVEY, GEORGE - - -	2751	13th Oct. 1862	Boring-machinery.
HASELER, GEORGE CARTER -	1400	10th May 1862	Improvements in the manufacture of lockets, and of a new application of parkesine as a substitute for glass in the construction of lockets and other articles of jewellery.
HASELTINE, GEORGE - -	985	7th April 1862	Improvements in lamps especially designed for burning hydro-carbon oils. (Communicated by Anson Platt, M. D., and General William Rosecrans.)
HASELTINE, GEORGE - -	1480	16th May 1862	Churns. (Communicated by Sidney Sweet.)
HASELTINE, GEORGE - -	1712	7th June 1862	A new and improved photographic camera. (Communicated by Allen Benjamin Wilson.)
HASELTINE, GEORGE - -	1756	13th June 1862	Construction and application of rails for railways. (Communicated by Benjamin Morison.)
HASELTINE, GEORGE - -	1795	17th June 1862	Improvements in roofs for railroad cars and hurricane decks of vessels. (Communicated by Alonzo Page Winslow.)
HASELTINE, GEORGE - -	1845	23rd June 1862	Improvements in machinery for mowing and reaping, the driving gear employed being applicable to machines for other purposes. (Communicated by Moses Gilbert Hubbard.)
HASELTINE, GEORGE - -	1863	25th June 1862	Improvements in vapourising-lamps for burning petroleum or coal oil. (Communicated by James Rhodes.)
HASELTINE, GEORGE - -	2180	1st Aug. 1862	Apparatus for drying grain, gunpowder and other granular substances. (Communicated by Daniel Curtis Rand and Mortimer Wadsham.)
HASELTINE, GEORGE - -	2230	9th Aug. 1862	Carriage wheels. (Communicated by Charles Leavitt.)
HASELTINE, GEORGE - -	2554	17th Sept. 1862	Improvements in apparatus for the manufacture of gas from petroleum oil and water, and from cannel coals, bituminous coals, schists, tar, crude coal oil, or other hydrocarbons and water. (Communicated by James Edward Thomson and Henry Youll Hind.)
HASELTINE, GEORGE - -	2656	1st Oct. 1862	Means for and mode of warming and ventilating buildings. (Communicated by Edward Young Robbins.)
HASELTINE, GEORGE - -	2753	13th Oct. 1862	Improvements in jacks and screw nuts for attaching thills and poles of waggons and other vehicles to the axle-trees of the same. (Communicated by Lyman Derby.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HASELTINE, GEORGE - -	2819	20th Oct. 1862	Forging cannon and other heavy articles. (Communicated by Alonzo Hitchcock.)
HASELTINE, GEORGE - -	2838	21st Oct. 1862	Improvements in the mode of and in machinery for manufacturing nails, brads and other similar articles. (Communicated by William Avery Sweet and John Edson Sweet.)
HASELTINE, GEORGE - -	2935	30th Oct. 1862	Horse shoe machines. (Communicated by Jehu Brainerd and William Burridge.)
HASELTINE, GEORGE - -	2957	1st Nov. 1862	Improvements in coffins or burial cases. (Communicated by George Scollay, M.D.)
HASELTINE, GEORGE - -	3427	23rd Dec. 1862	Improvements in the mode of and apparatus for converting petroleum or coal oil into gas for lighting and heating, the said improvements being especially applicable to lamps and stoves. (Communicated by James Rhodes.)
HASELTINE, GEORGE - -	3466	29th Dec. 1862	Improvements in cartridges and in the mode of charging small arms and ordnance. (Communicated by John Winfield Bailey.)
HASLAM, CHARLES - -	48	7th Jan. 1862	Rotary screens.
HASLAM, CHARLES - -	180	24th Jan. 1862	Thrashing-machines.
HASLAM, SAMUEL - -	3431	24th Dec. 1862	Machinery or apparatus for preparing cotton or other fibrous materials to be spun.
HASSALL, HENRY THOMAS -	950	3rd April 1862	Improvements in reclining or invalids' chairs and in swinging or ships' chairs.
HASTINGS, JOHN HENRY -	427	18th Feb. 1862	Ploughs.
HATCHER, DANIEL GEORGE -	2115	25th July 1862	Improvements in steering ships and in apparatus for the same.
HATON, LOUIS APPOLINAIRE -	27	3rd Jan. 1862	Apparatus for cleaning, dressing or sifting grain. (Patented by William Edward Gedge.)
HATTERSLEY, ROBERT - -	3365	17th Dec. 1862	Apparatus for classing printers' types for composing-machines.
HATTON, GEORGE DARBYSHIRE	1711	7th June 1862	Presses.
HAUSWALD, FRIEDERICH -	1205	24th April 1862	Improved apparatus for obtaining motive-power from the wind. (Patented by Thomas Woodhouse Ashby.)
HAUSWALD, LUDWIG - -	1205	24th April 1862	Improved apparatus for obtaining motive-power from the wind. (Patented by Thomas Woodhouse Ashby.)
HAUTECLOQUE, PIERRE DENIS	1794	17th June 1862	Improvements in the manufacture of buttons and in apparatus for the same. (Patented by William Clark.)
HAVEMEYER, THEODORE AUGUSTUS.	2242	11th Aug. 1862	An improved carriage for conveying sugar moulds in sugar refineries. (Patented by William Clark.)
HAVISIDE, THOMAS SNAITH -	2419	1st Sept. 1862	An improved method of treating flax and other similar vegetable fibrous substances, to be used as substitutes for cotton.
HAWKSWORTH, WILLIAM -	1029	10th April 1862	Improvements in drawing metals and in the machinery or apparatus employed therein.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAWKSWORTH, WILLIAM -	3262	5th Dec. 1862	Improvements in drilling, drawing and rolling metals and in the machinery or apparatus employed therein.
HAWORTH, JOHN - - -	843	27th March 1862	An improved method of conveying telegraphic messages and signals by means of electricity without the intervention of any continuous artificial conductor.
HAWTHORN, ROBERT - -	3151	24th Nov. 1862	Pump valves.
HAWTHORN, WILLIAM - -	3151	24th Nov. 1862	Pump valves.
HAY, JOHN - - - -	1374	8th May 1862	Improved arrangements to facilitate the cleaning and repairing of ships' bottoms.
HAY, JOHN - - - -	1590	27th May 1862	Improvements in war ships, also applicable in part to floating and land batteries or forts, and in part to mercantile and other vessels.
HAYNES, WILLIAM - -	1078	15th April 1862	Improvements in machinery or apparatus to be used in the manufacture of leather.
HAYWARD, DANIEL EDWIN -	2836	21st Oct. 1862	Manufacture of boots and shoes. (Patented by George Tomlinson Bougfield.)
HEAD, JEREMIAH - - -	2920	29th Oct. 1862	Machinery employed when cultivating land by steam power.
HEALEY, SAMUEL - - -	2774	14th Oct. 1862	Manufacture of zinc.
HEAP, CHARLES ROGERS -	1083	15th April 1862	An improved construction of railway chair. (Communicated by Antonio Gabrielli.)
HEAP, JOSHUA - - - -	2703	7th Oct. 1862	Screw stocks and dies.
HEARN, JAMES - - - -	2292	14th Aug. 1862	Improvements in apparatus or appliances for raising sick or bed-ridden persons in their beds and for lifting their bed-clothes.
HEATH, ANTHONY - - -	51	8th Jan. 1862	Improvements in the construction of ink-stands.
HEATON, EDWARD - - -	68	9th Jan. 1862	Improvements in ordnance and fire-arms, and in projectiles to be used therewith. (Patented by Benjamin Thompson.)
HEBARD, BENJAMIN - - -	1880	26th June 1862	A new composite fluid to be used for illuminating purposes. (Patented by John Henry Johnson.)
HECKERT, CARL - - - -	2069	21st July 1862	An improved method of cutting sheet and plate glass to any given design, giving the finished form the brightest polish possible. (Patented by James William Green.)
HECKETHORN, CHARLES WIL- [LIAM.]	508	25th Feb. 1862	Obtaining and applying motive-power by means of a wheel containing mercury.
HECKETHORN, CHARLES WIL- [LIAM.]	1720	9th June 1862	Improved apparatus for obtaining and applying motive-power.
HEDGELY, HENRY - - -	2140	28th July 1862	Lamps.
HEGER, Dr. IGNAZ - - -	1617	29th May 1862	Apparatus for raising, propelling or exhausting air, water or other fluids or gases. (Patented by Charles Denton Abel.)
HEINHOLD, EDOUARD - -	1588	27th May 1862	A new or improved method of applying various mineral and organic substances to wire-gauze, metallic and asbestos tissues, for rendering said tissues available for ornamental and useful purposes. (Patented by Frederick Tolhausen.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HEINKE, CHARLES EDWIN -	1190	23rd April 1862	Improvements in diving-helmets, dresses and apparatus, parts of which improvements may also be employed for extinguishing fires in ships and other confined places.
HELME, WILLIAM - - -	134	18th Jan. 1862	A new or improved fire-lighter.
HELME, WILLIAM - - -	938	3rd April 1862	Fire-lighters.
HELY, EDWARD, junior - -	2801	16th Oct. 1862	Envelopes.
HEMPREY, HENRY - - -	1921	1st July 1862	Apparatus for elevating straw and other agricultural produce.
HEMSLEY, JOHN - - -	2500	11th Sept. 1862	An improved fabric or material for scarfs, ties, handkerchiefs and neckerchiefs.
HENDERSON, GEORGE - - -	3163	25th Nov. 1862	Steam-engines. (Communicated by Hugh McLardy.)
HENDERSON, WILLIAM - - -	3438	24th Dec. 1862	Obtaining iron and steel from certain ores and residual products.
HENDRICK, ELI EMERY - - -	2176	31st July 1862	Lubricating-compounds. (Patented by William Edward Newton.)
HENDY, JAMES SAUL - - -	680	13th March 1862	An improvement in the construction of chimneys and chimney pots.
HENNINOT, PIERRE JOSEPH -	8	1st Jan. 1862	Improvements in shears or scissors chiefly applicable to be employed in the manufacture of lace. (Patented by Richard Archibald Brooman.)
HENRY, MICHAEL - - -	161	21st Jan. 1862	Improvements in the mode of and apparatus for applying electricity to horology. (Communicated by François Victor Guyard.)
HENRY, MICHAEL - - -	316	6th Feb. 1862	Improvements in obtaining and applying motive-power and raising and forcing fluids, and in apparatus employed therein. (Communicated by Louis Coignard.)
HENRY, MICHAEL - - -	432	18th Feb. 1862	Cartridges. (Communicated by Jules Lemoine.)
HENRY, MICHAEL - - -	649	10th March 1862	An improvement in preparing hooks and hooks and eyes for sale or consumption. (Communicated by the "Société" Gingebré et Damiron.)
HENRY, MICHAEL - - -	691	13th March 1862	Stuffing-boxes. (Communicated by Francisque Million.)
HENRY, MICHAEL - - -	807	22nd March 1862	Kilns, ovens and furnaces. (Communicated by the Société Coignet père et fils et Compagnie.)
HENRY, MICHAEL - - -	910	1st April 1862	An improved furnace for treating iron ore. (Communicated by Joseph Alexandre Marcel Bonne.)
HENRY, MICHAEL - - -	1263	29th April 1862	Improvements in apparatus for aerating liquids, and in fastenings for the said apparatus and for other articles. (Communicated by Etienne Sébastien François.)
HENRY, MICHAEL - - -	1317	3rd May 1862	Improvements in the process of and apparatus for preparing materials for the manufacture of paper, and in obtaining products from agents used in the said process, part of the invention being also applicable to apparatus for washing. (Communicated by Jean Baptiste Vasseur and Xavier Lamotte.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HENRY, MICHAEL - - -	1449	13th May 1862	An improvement in or addition to gloves. (Communicated by Hugues Michel Cheilley, Philippine Antoinette Cheilley and Philippe Cheilley.)
HENRY, MICHAEL - - -	2109	24th July 1862	Improvements in apparatus for retarding and stopping carriages, especially applicable to railway carriages, and in disconnecting apparatus for carriages. (Communicated by Charles Fray, Vincent Paul Amédée Varenne, Louis Casimir Descouleur and Sabin Joseph Cazier.)
HENRY, MICHAEL - - -	2155	29th July 1862	Improvements in obtaining fibrous materials and paper pulp, in treating, cleansing and scouring fibrous materials and fabrics manufactured thereof, in producing soap for the said operations, and in obtaining products from liquors used therein. (Communicated by Jean Baptiste Vasseur and Victorien Joseph Janssens.)
HENRY, MICHAEL - - -	2358	23rd Aug. 1862	Stuffing-boxes and their packings. (Communicated by Auguste Mesnard.)
HENRY, MICHAEL - - -	2634	27th Sept. 1862	Certain new and improved applications of petroleum and its products, certain agents produced by combining the same with other substances, and certain modes of treating caoutchouc, gutta percha and their compounds and substances similar thereto. (Communicated by the Joint Stock Company called The Société Chartier et Compagnie.)
HENRY, MICHAEL - - -	3211	29th Nov. 1862	Manufacture of leather. (Communicated by Manuel Luis Godoy Prince de Bassano and Louis Antoine Beaudet.)
HENRY, MICHAEL - - -	3344	13th Dec. 1862	Fitting or applying propellers to ships and other vessels. (Communicated by Jean Pierre Victor Le Rouge.)
HENSMAN, WILLIAM - -	598	5th March 1862	Improvements in steam ploughs and in apparatus connected therewith.
HENSMAN, WILLIAM, JR. -	598	5th March 1862	Improvements in steam ploughs and in apparatus connected therewith.
HENSON, HENRY HENSON -	849	27th March 1862	Wicks for candles and lamps.
HENSON, WILLIAM - - -	816	24th March 1862	Knitting-machinery.
HENSON, WILLIAM - - -	2039	16th July 1862	Improvements in knitting-machinery and in apparatus connected therewith.
HENSON, WILLIAM FREDERICK	849	27th March 1862	Wicks for candles and lamps.
HEPPEL, JOHN MORTIMER -	1313	3rd May 1862	Improvements in the construction of the permanent way of railways.
HEPTINSTALL, JOHN - -	1034	10th April 1862	Improvements in making circular blooms such as are used in the manufacture of tyres and for other purposes.
HERAPATH, WILLIAM BIRD -	2294	14th Aug. 1862	Improvements in decolorizing solutions of sugar and also vegetable juices containing sugar.

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ALPHABETICAL INDEX OF PATENTEES.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HERAPATH, WILLIAM BIRD -	2296	14th Aug. 1862	Improvements in treating crystallizable sugar to render it more suitable for fermentation and conversion into alcohol and vinegar.
HERDEVIN, JEAN MARIE -	1311	3rd May 1862	Sluice cocks.
HERDMAN, JOHN - - -	1314	3rd May 1862	Improvements in the manufacture of wrought iron, steel, or combined wrought iron and steel plates adapted for ship building and other purposes for which strength and lightness are required.
HERMITE, HYPPOLITE VICTOR	2237	11th Aug. 1862	Machines for weaving, warping, sizing and dressing. (Patented by Henry Bernoulli Burlow.)
HERMITTE, BAPTISTE L' -	1504	17th May 1862	A new safety lock. (Patented by Charles Hippoly e Tessier.)
HETHERINGTON, JOHN - -	363	11th Feb. 1862	Improvements in machinery or apparatus for preparing cotton and other fibrous materials for spinning.
HETHERINGTON, JOHN - -	1745	11th June 1862	Lubricating revolving surfaces.
HETHERINGTON, JOHN MUIR -	1134	17th April 1862	Improvements in machinery or apparatus for preparing cotton and other fibrous materials for spinning.
HETHERINGTON, JOHN MUIR -	1936	2nd July 1862	Machinery or apparatus for preparing, spinning and doubling cotton and other fibrous materials.
HETZEL, FREDERIC - - -	2995	5th Nov. 1862	Spinning-frames. (Patented by Richard Archibald Brooman.)
HEWITT, GEORGE - - -	96	13th Jan. 1862	Improvements in apparatus used in the manufacture of drain tiles.
HEWITT, JOHN - - -	2033	15th July 1862	Self-acting and hand mules employed in spinning cotton and other fibrous materials.
HEWITT, WILLIAM - - -	380	13th Feb. 1862	Rein holders.
HEYL, CHARLES OTTO - -	3010	7th Nov. 1862	Improved means and machinery to be used for the purpose of extracting fatty oils from oleaginous seeds, and for purifying the said oils, and for extracting the agents employed from the exhausted residue.
HEYWORTH, JOHN - - -	1023	3rd May 1862	Looms for weaving.
HICKMAN, HENRY - - -	1274	30th April 1862	An improvement in the method of fastening ladies' crinoline skirts and other articles of wearing-apparel and elastic and other bands.
HICKS, JAMES - - -	740	17th March 1862	Mercurial barometers.
HICKS, ROBERT - - -	1776	14th June 1862	Manufacture or preparation of paints, pigments and colours.
HIGGIN, JAMES - - -	182	24th Jan. 1862	Improvements in machinery for retarding and stopping railway carriages.
HIGGIN, JAMES - - -	2197	5th Aug. 1862	An improved substitute for cow dung used in printing and dyeing textile fabrics or yarns.
HIGGINS, HENRY - - -	2519	12th Sept. 1862	Machinery or apparatus for opening, cleansing or carding cotton and other fibrous materials.
HIGGINS, JAMES - - -	45	7th Jan. 1862	Improvements in machinery or apparatus for spinning and doubling cotton and other fibrous materials.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HIGGINS, THOMAS - - -	2311	16th Aug. 1862	Improved apparatus for dipping lucifer matches.
HILL, ALBERT - - -	775	20th March 1862	An improved fastening for stays.
HILL, CHARLES GREY - -	1852	5th July 1862	Machinery or apparatus for producing ornamental patterns or figures and attaching them to lace or other fabrics.
HILL, CHRISTOPHER - -	109	14th Jan. 1862	Improvements in the manufacture of lubricating compounds.
HILL, DANIEL - - -	3000	5th Nov. 1862	Apparatus for stamping or marking and counting bank notes and other documents.
HILL, HENRY - - -	1141	19th April 1862	Fastening flyers upon spindles.
HILL, JAMES CHARLES - -	1502	17th May 1862	Puddling-furnaces.
HILL, JOHN - - -	273	1st Feb. 1862	Improvements in the construction of portable chairs and other articles for sitting or reclining on, road, children's and invalid carriages, ambulances or vehicles for carrying sick or wounded persons.
HILL, JOHN REID - - -	1995	11th July 1862	An improved governor for the engines of steam vessels.
HILL, LAURENCE - - -	282	3rd Feb. 1862	Improvements in applying armour plating to war ships.
HILL, THOMAS - - -	2007	12th July 1862	Improvements in the arrangements employed for the protection of markers at rifle butts, and in the means employed in indicating the score and position of the shot, and wiping out the shot mark.
HILLIAR, JOHN - - -	3290	8th Dec. 1862	Improvements in hinges, joints or connections and in applying them, parts of which improvements may also be employed for constructive and decorative purposes.
HILLIAR, JOHN - - -	3291	8th Dec. 1862	Improvements in ventilating and in the exclusion of dust or draught, insects or other animals from apartments, carriages or other confined spaces.
HINCHCLIFFE, JOHN - -	917	1st April 1862	Improvements in rolling or straightening metal spindles, shafts or rods of a cylindrical or tapered form.
HIND, HENRY YOULL - -	2554	17th Sept. 1862	Improvements in apparatus for the manufacture of gas from petroleum oil and water, and from cannel coals, bituminous coals, schists, tar, crude coal oil, or other hydro-carbons and water. (Patented by George Haseltine.)
HINDE, THOMAS CALLENDER -	3430	24th Dec. 1862	Improvements in furnaces or apparatus for generating carbonic oxide.
HINDLEY, EDMUND SAMUEL -	1979	9th July 1862	Apparatus used when circulating hot water for warming dwelling-houses and other places, which apparatus may be used for cooling and condensing..
HINKS, JOSEPH - - -	169	23rd Jan. 1862	A new apparatus for warming and drying boots, shoes or slippers, which apparatus is also applicable for racking or storing boots, shoes or slippers for exhibition or otherwise.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HINKS, JOSEPH - - -	2356	23rd Aug. 1862	Improvements in brooms and brushes, and in the mode of fastening brooms, brushes and mops to their handles or stales (or stails).
HINSHAW, ANDREW - -	369	12th Feb. 1862	Hooped skirts. (Communicated by John Coulthard Kelley.)
HINTON, WILLIAM - - -	443	19th Feb. 1862	Barometers.
HIPP, MATTHEUS - - -	2574	19th Sept. 1862	Apparatus for telegraphing and signalling by means of electricity. (Patented by John Imray.)
HIRSCH, HERMANN - -	2643	29th Sept. 1862	Apparatus for showing combinations of colours.
HIRST, JOHN, junior - -	1605	28th May 1862	Improvements in means or apparatus for evaporating water and other fluids, and in economising the use of steam.
HIRST, JOHN, jr. - - -	1611	27th May 1862	Stereoscopic apparatus.
HIRST, JOHN WILLIAM - -	310	6th Feb. 1862	Improvements in slide valves for steam-engines and other similar purposes.
HIRST, WILLIAM - - -	2481	9th Sept. 1862	Improvements in machinery to be employed in the manufacture of paper or linen spool tubes, which machinery is also applicable for the manufacture of cart-ridge cases.
HITCHCOCK, ALONZO - -	2819	20th Oct. 1862	Forging cannon and other heavy articles. (Patented by George Haseltine.)
HJERPE, JOHAN WILHELM	3123	20th Nov. 1862	An improved composition or preparation of materials applicable for igniting matches.
HOBBS, GEORGE - - -	2855	23rd Oct. 1862	Sewing-machines. (Patented by William Clark.)
HODGE, PAUL RAPSEY - -	1548	22nd May 1862	An improved dinner, supper, breakfast or dessert plate.
HODGKINSON, ALFRED - -	1184	23rd April 1862	A mixture or composition to be used in the process of boiling, preparing or bleaching vegetable substances whether they are in the manufactured or unmanufactured state, which mixture may also be used in the manufacture of soap.
HODGKINSON, JOHN - - -	420	17th Feb. 1862	Improvements in machinery or apparatus for preparing or combing cotton, wool and other fibrous materials.
HOE, RICHARD MARCH - -	239	29th Jan. 1862	Printing-machinery. (Patented by William Edward Newton.)
HOEHL, WILLIAM - - -	1568	26th May 1862	Steam and other motive engines.
HOEPFNER, FRIEDRICH WIL- [HELM.	2360	23rd Aug. 1862	Improvements in the mode of and apparatus for treating fermentable substances for brewing and distilling. (Patented by William Edward Newton.)
HOGG, ADAM - - - -	2911	29th Oct. 1862	Smoothing-irons.
HOGG, JAMES, jr. - - -	1500	17th May 1862	Book-covers.
HOLCROFT, GEORGE - - -	923	2nd April 1862	Improvements in the construction of blast furnaces.
HOLDEN, HOWARD ASHTON -	1001	8th April 1862	Improvements in apparatus used in drawing water or other fluids from cisterns, tanks or other vessels.
HOLDEN, ISAAC - - -	1890	27th June 1862	Means or apparatus for preparing and combing wool and other fibrous materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOLDEN ISAAC - - -	3394	18th Dec. 1862	Means or apparatus employed in preparing and combing wool and other fibres.
HOLDEN ISAAC - - -	3395	18th Dec. 1862	Means or apparatus for washing wool and other fibres.
HOLDEN, LUKE - - -	1176	23rd April 1862	Certain improvements in harness for animals of draught and burden.
HOLDSWORTH, HARRY - -	2587	22nd Sept. 1862	Manufacture of crinoline steel.
HOLDSWORTH, TOM - -	2241	11th Aug. 1862	Improvements in means, machinery or apparatus for warping, scouring, sizing, stretching, measuring, cooling, drying and beaming yarns for weaving.
HOLIDAY, WILLIAM - -	805	22nd March 1862	Improvements in the manufacture of press-plates.
HOLLAND, HENRY - - -	1089	11th April 1862	Improvements in manufacturing the stretcher joints of umbrellas and parasols.
HOLLAND, HENRY - - -	2488	10th Sept. 1862	New or improved compositions for the manufacture of black ornaments such as brooches, bracelets, ear rings and other ornaments usually made of jet, which said compositions may also be applied to the manufacture of various other articles.
HOLLAND, JOHN HENRY -	1638	31st May 1862	Traction engines.
HOLLAND, SAMUEL - -	2696	6th Oct. 1862	Machinery for the manufacture of bricks, drain, sanitary and other pipes, tiles, quarries and other articles of like manufacture made from clay, marl and other plastic substances.
HOLLAND, WILLIAM - -	1031	10th April 1862	Carding-engines.
HOLLAND, WILLIAM - -	1738	11th June 1862	Certain improvements in carding-engines.
HOLLINGWORTH, JOHN -	2928	30th Oct. 1862	Certain improvements in machinery or apparatus for preparing cotton and other fibrous materials for spinning.
HOLLINS, GEORGE - - -	2967	3rd Nov. 1862	Manufacture of straps or belts for machinery.
HOLLINSHED, GEORGE -	1009	9th April 1862	Sandwich cases and similar articles.
HOLMAN, STEPHEN - -	1834	21st June 1862	Pumps and valves.
HOLMES, JOSEPH ELLICOTT -	1367	7th May 1862	Swings. (Patented by Richard Archibald Brooman.)
HOLMES, JOSEPH ELLICOTT -	1577	26th May 1862	Machinery for digging or cultivating land.
HOLMES, JOSEPH ELLICOTT -	1578	26th May 1862	Machinery for digging or cultivating land. (Communicated by George Ramsey.)
HOLMES, JOSEPH ELLICOTT -	1579	26th May 1862	Printing-machinery. (Communicated by Frederic Otto Degener.)
HOLMES, JOSEPH ELLICOTT -	1744	11th June 1862	Improved machinery for cultivating or harrowing land. (Communicated by Orman Coe.)
HOLMES, JOSEPH ELLICOTT -	1784	17th June 1862	Improved machinery for digging or cultivating land. (Communicated by Benjamin Field.)
HOLMES, RICHARD RIVINGTON	3029	10th Nov. 1862	Folding chairs and seats.
HOLMES, SAMUEL - - -	1285	30th April 1862	Lamps. (Patented by William Edward Newton.)
HOLMES, THOMAS - - -	1290	1st May 1862	An improvement in the manufacture of military cartouches, portmonnaies, courier bags, letter bags, knapsacks and other articles of a like nature.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOLMGREN, WILHELM - -	3123	20th Nov. 1862	An improved composition or preparation of materials applicable for igniting matches.
HOLROYD, SAMUEL - -	3041	11th Nov. 1862	Improvements in the purification of gas and in obtaining certain useful products therefrom.
HOLT, THOMAS - - -	142	20th Jan. 1862	Improvements in folding iron chairs and chair bedsteads.
HOLT, THOMAS - - -	2186	30th July 1862	An improved composition or compositions for protecting polished surfaces of iron and steel against oxidation, and for renewing and improving the polish of such surfaces.
HOOKE, CHARLES - - -	1713	7th June 1862	Construction of steam-engines.
HOOKE, WILLIAM HENRY -	892	31st March 1862	Improvements in folding envelopes and paper and in machinery or apparatus employed therein.
HOOPER, EDWARD - - -	2898	28th Oct. 1862	Roofing tiles.
HOPE, DAVID GRAHAM - -	3447	24th Dec. 1862	Improved machinery for obtaining and applying motive-power.
HOPKINS, EVAN - - -	2960	1st Nov. 1862	An improved mode of and apparatus for treating ores for the extraction of metals therefrom.
HOPKINSON, JOHN - - -	1530	21st May 1862	Improvements in pianofortes and in the hammer rails of pianofortes.
HOPKINSON, JOHN - - -	3093	18th Nov. 1862	Improvements in fire alarms and indicators of temperature.
HOPPE, CHARLES - - -	779	20th March 1862	An improved method of preparing tobacco for smoking and in the apparatus to be used for that purpose. (Patented by William Baddeley.)
HOPWOOD, JAMES - - -	2291	14th Aug. 1862	Machinery or apparatus used for collecting fibrous material and dirt from the carriage boards and roller beams of mules and other similar machines used in spinning.
HOPWOOD, THOMAS HENRY -	1362	7th May 1862	Certain improvements in the means or apparatus to be employed for the purpose of raising sunken vessels or other submerged bodies, and also in the application of a self-acting balance and regulator to the pontoons used therein.
HORN, ARCHIBALD - - -	79	10th Jan. 1862	Improvements in railway signalling by electricity, and in the arrangement of apparatus for that purpose.
HORNSBY, RICHARD, jr. -	387	13th Feb. 1862	Improvements in apparatus for thrashing, elevating, cleansing and separating grain, and in apparatus for elevating straw.
HORNSBY, RICHARD, junior -	3259	4th Dec. 1862	Apparatus for cutting and pulping turnips and other vegetables.
HORSLEY, THOMAS - - -	409	15th Feb. 1862	Improvements in apparatus for turning and closing the cartridges of breech-loading fire-arms.
HORSLEY, THOMAS, jr. - -	374	12th Feb. 1862	Breech-loading fire-arms.
HORTON, JOHN - - -	2102	24th July 1862	Breech-loading fire-arms. (Communicated by Joseph Reeder.)
HORTON, JOSHUA - - -	2932	30th Oct. 1862	Construction of armour-plated ships and fortifications.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOSCH, LOUIS - - -	2731	10th Oct. 1862	Mode of constructing travelling trunks and portmanteaus.
HOSKINS, EBENEZER - -	2282	14th Aug. 1862	An improvement or improvements in the manufacture of plain and ornamental metallic pillars for bedsteads, cots, couches, tables and other like purposes.
HOTCHKISS, BENJAMIN BERK- [LEY.	1798	18th June 1862	Projectiles. (Patented by John Henry Johnson.)
HOTCHKISS, BENNET - -	2581	20th Sept. 1862	Atmospheric trip hammers.
HOTTIN, EDOUARD - - -	1717	9th June 1862	A composition for rendering unflammable linen, flax, silk, cotton, woodwork and other articles or materials.
HOUGHTON, EDWARD PIERCE -	3096	18th Nov. 1862	An improved method of applying breaks or apparatus for stopping or retarding railway carriages.
HOUGHTON, FREDERICK BUR- [NETT.	584	3rd March 1862	Manufacture of paper.
HOUGHTON, JAMES - - -	1047	11th April 1862	Looms for weaving.
HOUGHTON, JAMES - - -	2593	23rd Sept. 1862	Looms for weaving.
HOUGHTON, JOHN - - -	1024	10th April 1862	An improved haversack.
HOUGHTON, WILLIAM - - -	1047	11th April 1862	Looms for weaving.
HOUGHTON, WILLIAM - - -	2593	23rd Sept. 1862	Looms for weaving.
HOUSE, HENRY ALONZO - -	3165	25th Nov. 1862	Sewing-machines. (Patented by Alfred Vincent Newton.)
HOUSE, JAMES - - -	1409	10th May 1862	Machinery or apparatus for crushing or reducing substances.
HOUSE, JAMES ALFORD - -	3165	25th Nov. 1862	Sewing-machines. (Patented by Alfred Vincent Newton.)
HOUSE, MARK - - -	3237	2nd Dec. 1862	Electro-thermal baths. (Patented by Richard Kingsman Cautley.)
HOWARD, CHARLES EDWARD -	3400	19th Dec. 1862	Improved machinery for attaching metal eyelets to cloth and other materials. (Patented by Alfred Vincent Newton.)
HOWARD, JAMES - - -	15	1st Jan. 1862	Improved apparatus applicable to steam cultivation.
HOWARD, JAMES - - -	1052	11th April 1862	Improved apparatus applicable to steam cultivation.
HOWARD, JOHN - - -	688	13th March 1862	Warping and beaming machines.
HOWARD, JOHN - - -	1948	4th July 1862	Warping and beaming machines.
HOWARD, JOHN - - -	3301	9th Dec. 1862	Machinery or apparatus for preparing cotton or other fibrous materials to be spun.
HOWAT, ANDREW - - -	1805	19th June 1862	Construction of water gauges and blow-off taps for steam-boilers and other purposes.
HOWDEN, JAMES - - -	34	4th Jan. 1862	Steam-engines and boilers.
HOWE, ELIAS, jr. - - -	707	14th March 1862	Improvements in machinery for digging and disintegrating the earth for agricultural purposes. (Patented by George Tomlinson Bousfield.)
HOWE, ELIAS, jr. - - -	1369	7th May 1862	Improvements in applying steam power to tilling land by means of a digging locomotive. (Patented by George Tomlinson Bousfield.)
HOWELL, JOSEPH BENNETT -	695	13th March 1862	Improvements in the manufacture of chains and chain cables.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOWELL, JOSEPH BENNETT -	3149	24th Nov. 1862	Improvements in the manufacture of armour and other plates and in shot and shell.
HOWIE, JOHN - - - -	333	8th Feb. 1862	Improvements in regulating the consumption of fuel in furnaces.
HOWIE, JOHN - - - -	2517	12th Sept. 1862	Construction of the crossings and switches of railways.
HOWIE, JOHN - - - -	2896	27th Oct. 1862	Machinery or apparatus for regulating the supply of solid or liquid bodies to mills or other apparatus used in mixing or preparing plastic matters.
HOYAU, LOUIS CONSTANT -	2503	11th Sept. 1862	An improved portable apparatus for marking time.
HOYLE, ROBERT - - - -	2651	30th Sept. 1862	Machinery or apparatus for printing surfaces of woollen, mohair, cotton and other fabrics.
HOYLE, WILLIAM JENNINGS -	2324	19th Aug. 1862	Improvements in mechanism and arrangements for supplying lubricating matter to the cylinders of steam-engines, and to the bearings and other surfaces of mechanism.
HUBBARD, MOSES GILBERT -	1845	23rd June 1862	Improvements in machinery for mowing and reaping, the driving gear employed being applicable to machines for other purposes. (Patented by George Haseltine.)
HUBERT, H. - - - -	890	31st March 1862	Machinery for cutting pointed, conical and cylindrical corks. (Patented by Nathan Frankenstein.)
HUCH, EDWARD HEINSON -	1867	25th June 1862	Caloric engines named fire air-engines.
HUDDART, GEORGE AUGUSTUS	1576	26th May 1862	Improved means for superheating steam.
HUDDART, GEORGE AUGUSTUS	3287	8th Dec. 1862	Buttons.
HUDDART, GEORGE AUGUSTUS	3379	17th Dec. 1862	Buttons.
HUDSON, CHARLES HODGE -	1595	27th May 1862	Improvements in defensive armour.
HUDSON, WILLIAM - - -	3360	16th Dec. 1862	Improvements in looms for weaving and in arranging the warps therein.
HUGHES, EBENEZER WILLIAM	102	14th Jan. 1862	Improvements in malleable cylinders and tubes used in engineering and architectural structures.
HUGHES, EBENEZER WILLIAM	2847	22nd Oct. 1862	Turntables and turn bridges.
HUGHES, EDWARD THOMAS -	423	17th Feb. 1862	An improved method of and apparatus for collecting the gases given off from furnaces. (Communicated by Emil Langen.)
HUGHES, EDWARD THOMAS -	689	13th March 1862	Improvements in furnaces for consuming smoke. (Communicated by Napoléon Félix Borako de Chodzko and Jean Louis Lebeaux.)
HUGHES, EDWARD THOMAS -	1873	26th June 1862	Regulating or moderating the movement of the keys of pianofortes. (Communicated by François Maury Jacques Dumas and Jean Aristide Dumas.)
HUGHES, EDWARD THOMAS -	2008	12th July 1862	An improved system of winding or rolling silk thread on moulds or bobbins, and placing them in suitable boxes. (Communicated by Felicité and Ernest Jaricot.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUGHES, EDWARD THOMAS -	2148	29th July 1862	An improved process of refining the slag from blast, puddling and other furnaces. and the employment of the refined material for mortar, stones, slabs, ornaments and other similar articles. (Communicated by Emil Langen.)
HUGHES, EDWARD THOMAS -	2406	30th Aug. 1862	Improvements in the manufacture of woven fabrics and in apparatus employed therein. (Communicated by Adolphus Henry Polko.)
HUGHES, EDWARD THOMAS -	3292	8th Dec. 1862	Improvements in galvanic apparatus. (Communicated by Johann Jacob Dahms and Albert Rudolph Wittig.)
HUGHES, HESKETH - -	2463	6th Sept. 1862	An improved frilled and fluted fabric or material, and improvements in fluting or goffering machines.
HUGHES, HUGH PRICHARD -	2362	26th Aug. 1862	Construction of sawing-machines.
HUGHES, JAMES LEIGH - -	2653	30th Sept. 1862	Producing ornamental patterns in gold and color on porcelain, earthenware, glass and enamel.
HULSKAMP, GEORGE HENRY -	1897	28th June 1862	Pianofortes.
HULSKAMP, GEORGE HENRY -	1830	2nd July 1862	Improvements in violins and other similar stringed instruments and in guitars.
HUMFREY, CHARLES - -	2393	28th Aug. 1862	Treatment of petroleum to render it non-inflammable.
HUMFREY, CHARLES ROBERT -	2498	11th Sept. 1862	Printing-machinery.
HUMPHREY, DAVID WOOD [GREEN.	2775	14th Oct. 1862	Sewing-machines. (Patented by John Henry Johnson.)
HUMPHREYS, JOHN DOD- [BRIDGE.	970	4th April 1862	Improvements in furnaces and machinery employed in the manufacture of compressed fuel and other matters.
HUMPHRYS, EDWARD - -	655	11th March 1862	Steam-engines.
HUMPHRYS, EDWARD - -	2226	8th Aug. 1862	Steam-engines.
HUMPHRYS, EDWARD - -	2797	16th Oct. 1862	Steering-apparatus.
HUMPHRYS, EDWARD - -	2968	3rd Nov. 1862	Construction of centrifugal pumps.
HUMPHRYS, JAMES - -	788	21st March 1862	Steam-engines.
HUNT, EDWARD - - -	1884	27th June 1862	An improved condensing apparatus.
HUNT, JACOB - - -	2005	12th July 1862	Improvements in the process of sizing and drying yarns or threads and in the apparatus employed in such process.
HUNT, JOHN - - -	217	28th Jan. 1862	An improvement or improvements in the manufacture of gas and other chandeliers.
HUNT, JOHN - - -	1787	17th June 1862	An improvement or improvements in bronzing or colouring articles of copper or alloys of copper.
HUNT, WILLIAM - - -	2426	2nd Sept. 1862	An improvement or improvements in the manufacture of muriate of ammonia.
HUNTER, GEORGE - - -	942	3rd April 1862	Improvements in machinery and tools for cutting, sawing and planing stone, marble and slate.
HUNTER, JAMES - - -	718	15th March 1862	Reaping-machines.
HUNTER, JOHN - - -	684	13th March 1862	Apparatus for removing slag from furnaces.
HUNTER, SAMUEL - - -	931	2nd April 1862	Anchors.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUNTER, THOMAS - - -	980	4th April 1862	Improvements in the arrangements of kilns and flues for burning bricks, tiles, quarries and other like articles, and in utilizing the waste heat of the said kilns, and in stoves for drying bricks, tiles, quarries and other like articles.
HUNTINGTON, THOMAS - -	1291	2nd May 1862	Improvements in the machinery for the manufacture of bread.
HUNTINGTON, WILLIAM - -	1291	2nd May 1862	Improvements in the machinery for the manufacture of bread.
HUNTLEY, THOMAS - - -	2983	4th Nov. 1862	Improvements in kitcheners and kitchen ranges, and in cooking and bath heating apparatuses.
HUNTLY, SAMUEL HAZARD -	1785	17th June 1862	Improvements in the construction of furnaces for effecting the more perfect combustion of the fuel.
HUNTLY, SAMUEL HAZARD -	2460	6th Sept. 1862	Improvements in cooking apparatus more particularly applicable to the requirements of the army and navy.
HURD, FREDERICK - - -	2628	26th Sept. 1862	Improvements in apparatus applicable to machines for preparing wool, flax and other fibrous substances, parts of which are also applicable to machines for other uses.
HUSBAND, WILLIAM - - -	2391	28th Aug. 1862	Water valves.
HUSSON, CHARLES - - -	1538	21st May 1862	Improvements in the manufacture of metallic or mineralized fabrics or surfaces. <i>(Patented by William Edward Newton.)</i>
HUSTON, SAMUEL - - -	1689	4th June 1862	Safety valves.
HUTCHINGS, JOHN THOMAS -	3114	20th Nov. 1862	Construction of waterproof boot and shoe soles.
HUTCHINSON, HIRAM - - -	2633	27th Sept. 1862	Improvements in machinery for covering wire with india-rubber and gutta-percha and similar gums and compounds thereof, and for manufacturing tubes and other articles of such gums and compounds. <i>(Communicated by Thomas Sault.)</i>
HUTCHINSON, WILLIAM HODG- [SON.	1118	17th April 1862	Improvements in the manufacture of ammonia or its salts and cyanogen or its compounds from refuse gluten.
HUTCHINSON, WILLIAM HODG- [SON.	2330	20th Aug. 1862	Improvements in the manufacture of ammonia and the prussiates of potash or soda, and in apparatus employed in such manufactures.
HUTCHINSON, WILLIAM NEL- [SON.	1425	12th May 1862	An improvement in screw propelled ships.
HUTCHINSON, WILLIAM NEL- [SON.	3007	6th Nov. 1862	Apparatus or means for protecting the screw of steamers from becoming entangled with or fouled by ropes or other bodies.
HUWITZ, GEORGE - - -	2164	30th July 1862	Improvements in the means or processes employed for preserving timber from decay or destruction. <i>(Patented by George Henry Birkbeck.)</i>
HUWITZ, GEORGE - - -	3178	27th Nov. 1862	Improved means of obtaining certain products resulting from the manufacture and purification of coal gas. <i>(Patented by Frederic William Hartley.)</i>

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HYAMS, MICHAEL - - -	3350	15th Dec. 1862	Improvements in the manufacture of cigars, cheroots and cigarettes, and in the treatment of tobacco.
HYDE, JAMES - - -	2693	6th Oct. 1862	Floating-batteries. (Patented by Thomas Keech.)
HYDE, JESSIA - - -	2159	30th July 1862	Certain improvements in governors for steam-engines, water-wheels, mills and for other similar purposes.
HYDE, JOSEPH - - -	2159	30th July 1862	Certain improvements in governors for steam-engines, water-wheels, mills and for other similar purposes.

I.

LARSSON, LEON - - -	2367	26th Aug. 1862	An improved process and machinery for bleaching or washing textile fabrics and materials.
ILES, CHARLES - - -	753	18th March 1862	Manufacture of umbrellas and parasols.
ILLINGWORTH, ALFRED - -	3077	15th Nov. 1862	Washing wool and other fibres.
ILLINGWORTH, HENRY - -	3077	15th Nov. 1862	Washing wool and other fibres.
ILROY, THOMAS MC - - -	1388	9th May 1862	An improved invalid bedstead.
ILWHAM, JAMES MC - - -	709	14th March 1862	Improvements in railway sleepers and chairs and in the mode of fixing rails.
IMRAY, JOHN - - -	509	25th Feb. 1862	Hinges.
IMRAY, JOHN - - -	2574	19th Sept. 1862	Apparatus for telegraphing and signalling by means of electricity. (Communicated by <i>Mattheus Hipp.</i>)
IMRAY, JOHN - - -	3324	11th Dec. 1862	Apparatus used for mixing and kneading.
INGHAM, JOHN - - -	1746	12th June 1862	Preparing colouring matters for dyeing and printing.
INGLE, JOHN BROUNCKER -	1732	10th June 1862	Reaping and mowing machines. (Communicated by <i>William Henry Seymour and Dayton Morgan.</i>)
INGLIS, WILLIAM - - -	3307	10th Dec. 1862	Steam-boilers.
INNIS, JOHN MC - - -	3353	16th Dec. 1862	Improvements in the distillation and treatment of petroleum and other like oils to obtain products therefrom and in the apparatus to be used therefor, parts of which can be applied for distilling other liquids.
IRELAND, JONATHAN - - -	1585	27th May 1862	Improvements in forming moulds for card cylinders.
IRLAM, WILLIAM - - -	227	28th Jan. 1862	Improvements in the construction of railway crossings and turntables.
IRVINE, JOHN - - -	2381	14th Aug. 1862	A new or improved rifle rest.
IRWIN, JOHN - - -	3216	1st Dec. 1862	An improved machine for cultivating land.
ISABEY, LOUIS GABRIEL EU- [GÈNE.]	2673	3rd Oct. 1862	An improved candlestick. (Patented by <i>William Clark.</i>)
ISABEY, LOUIS GABRIEL EU- [GÈNE.]	3380	17th Dec. 1862	Holders for lamps, candles, and other lights. (Patented by <i>William Clark.</i>)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ITURRIAGA, MANUEL - - -	2310	16th Aug. 1862	Fire-arms.
IVES, JULIUS - - -	1636	30th May 1862	Improved machinery for washing and wringing clothes or fabrics.
IVES, JULIUS - - -	1785	13th June 1862	Improved apparatus for expressing juice from fruit and other vegetable substances.
J.			
JACK, JAMES - - -	104	14th Jan. 1862	An improved method of preparing cores for moulding or shaping metals.
JACKSON, ÆMILIUS IRVING -	2607	24th Sept. 1862	Preparation and treatment of flax and other fibrous materials to be subsequently operated upon by machinery employed for preparing and spinning cotton.
JACKSON, ÆMILIUS IRVING -	2608	24th Sept. 1862	Machinery for cutting fibrous and other materials.
JACKSON, MICHAEL - - -	1754	12th June 1862	An improved shield for the gums to protect them from injury when cleaning the teeth.
JACKSON, ROBERT RAYNSFORD	2575	19th Sept. 1862	Looms for weaving.
JACKSON, ROBERT RAYNSFORD	2607	24th Sept. 1862	Preparation and treatment of flax and other fibrous materials to be subsequently operated upon by machinery employed for preparing and spinning cotton.
JACKSON, ROBERT RAYNSFORD	2608	24th Sept. 1862	Machinery for cutting fibrous and other materials.
JACKSON, THOMAS - - -	987	7th April 1862	Pianofortes.
JACKSON, THOMAS - - -	1936	2nd July 1862	Machinery or apparatus for preparing, spinning and doubling cotton and other fibrous materials.
JACKSON, WILLIAM - - -	1952	5th July 1862	Machinery or apparatus for producing ornamental patterns or figures and attaching them to lace or other fabrics.
JAMES, CHARLES WEDGE - - -	1807	19th June 1862	New or improved machinery for stocking and screwing guns and pistols.
JAMES, JOHN - - -	1926	2nd July 1862	An improved mode of welding railway crossings.
JAMES, JOHN WANKLYN - - -	2338	21st Aug. 1862	Construction of a self-acting lubricator for lubricating various parts of steam-engines.
JAMES, WILLIAM - - -	1680	4th June 1862	Improvements in bolts, spikes and nails, and in apparatus for their manufacture.
JAMES, WILLIAM HENRY - - -	3081	15th Nov. 1862	Steam-engines.
JAMET, LOUIS EUGÈNE - - -	2158	30th July 1862	Improved means or apparatus for securing the safety of trains moving on railways. (Patented by William Edward Gedge.)
JAMET, PAUL - - -	2158	30th July 1862	Improved means or apparatus for securing the safety of trains moving on railways. (Patented by William Edward Gedge.)
JANSEN, ADOLPHUS - - -	394	13th Feb. 1862	A new ball for fire-arms.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JANSSENS, VICTORIEN JOSEPH	2155	29th July 1862	Improvements in obtaining fibrous materials and paper pulp, in treating, cleansing and scouring fibrous materials and fabrics manufactured thereof, in producing soap for the said operations, and in obtaining products from liquors used therein. (Patented by Michael Henry.)
JAKUES, FRANK - - -	755	18th March 1862	Improvements in the construction of elastic surface rollers.
JAKUES, FRANK - - -	2488	31st Dec. 1862	Cases for pipes, mouth-pieces, cigars and other analogous articles.
JAKUES, JAMES ARCHIBALD -	755	18th March 1862	Improvements in the construction of elastic surface rollers.
JAKUES, JAMES ARCHIBALD -	2193	2nd Aug. 1862	Manufacture of grinding and polishing tools and surfaces.
JAKUES, JOHN, jr. - - -	999	8th April 1862	Improvements in the instruments used in the game of croquet. (Partly communicated by William Fowler Mountford Copeland.)
JARICOT, ERNEST - - -	2008	12th July 1862	An improved system of winding or rolling silk thread on moulds or bobbins and placing them in suitable boxes. (Patented by Edward Thomas Hughes.)
JARICOT, FÉLICITÉ - - -	2008	12th July 1862	An improved system of winding or rolling silk thread on moulds or bobbins and placing them in suitable boxes. (Patented by Edward Thomas Hughes.)
JARVIS, JOHN STEPHEN -	2055	18th July 1862	Shirt collars.
JARVIS, JOHN STEPHEN -	3161	25th Nov. 1862	Ladies' and gentlemen's leather collars.
JAUDEAU, EMILE - - -	1984	10th July 1862	An improved method of and apparatus for removing the bad flavor from alcohols distilled from grain, beetroot or other vegetables, and for extracting the whole of the alcohol contained in the fermented juice.
JEANNE, JULIEN GUSTAVE -	1871	25th June 1862	An improved frame for holding photographic pictures. (Patented by William Clark.)
JEANEAU, VICTOR FERDINAND	159	21st Jan. 1862	Improvements in street and road sweeping-machines, parts of which are applicable to the separation of liquid from solid substances. (Patented by Richard Archibald Brooman.)
JEFFREYS, JULIUS - - -	2905	28th Oct. 1862	Constructing surface condensers and apparatus for heating and cooling fluids.
JEFFRIES, GEORGE - - -	22	2nd Jan. 1862	Improvements in breech-loading fire-arms.
JEFFRIES, GEORGE - - -	3300	9th Dec. 1862	Breech-loading fire-arms.
JEFFRIES, WILLIAM - - -	1814	20th June 1862	A new or improved rail for railways, and a new or improved chair or sleeper for the said rail.
JENKINS, CALDWELL COLBER- [SON.	2337	21st Aug. 1862	Governors for steam-engines. (Patented by George Davies.)
JENKINS, WILLIAM - - -	2952	31st Oct. 1862	An improved mode of and apparatus for cutting coal.
JENKINSON, JOHN HENRY -	2778	15th Oct. 1862	Certain improvements in drinking fountains.
JENNINGS, FRANCIS MONT- [GOMERY.	2221	8th Aug. 1862	A composition for coating ships' bottoms to prevent fouling.

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ALPHABETICAL INDEX OF PATENTEES

[Joh

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JENNINGS, HENRY CONSTAN- [TINE.	1730	10th June 1862	Preparation of skins for driving-bands and harness traces.
JENNINGS, JOSIAH GEORGE -	566	1st March 1862	Improvements in the construction of chimneys or flues.
JENNINGS, JOSIAH GEORGE -	802	22nd March 1862	Improvements in the manufacture of biscuits.
JESSON, SAMUEL - - -	52	8th Jan. 1862	Improvements in the manufacture of gun barrels and wrought-iron tubing.
JEUNE, WILLIAM RICHARD -	1707	6th June 1862	Manufacture of fabrics suitable to be used as substitutes for solid leather.
JEWSBURY, JOSEPH - -	3115	20th Nov. 1862	An improvement or improvements in machines for raising weights, which improvement or improvements may also be applied to lathes.
JINKS, RICHARD - - -	1175	23rd April 1862	Improvements in apparatus for suspending, raising and lowering venetian blinds, and for retaining them and other blinds and also curtains and sun-shades at any required height.
JOBLING, THOMAS WILLIAM -	143	20th Jan. 1862	Improvements in the adaptation of locomotive engines to traction or haulage in mines.
JOCE, JOHN - - - -	3280	6th Dec. 1862	An improved composition or compositions for producing artificial sea water or the odour or effects of sea water.
JOHNSON, BRYAN - - -	1928	2nd July 1862	Rope wheels for mines, collieries and other similar purposes.
JOHNSON, BRYAN - - -	2036	16th July 1862	Improvements in rope wheels, cages and tanks used for mines, collieries and other similar purposes.
JOHNSON, EDWARD DANIEL -	3222	1st Dec. 1862	Pocket watches.
JOHNSON, FRANK GRANT -	727	17th March 1862	Water meters. (Patented by William Clark.)
JOHNSON, FREDERICK - -	2690	4th Oct. 1862	Improvements in domestic fire-escapes and in receptacles for the same.
JOHNSON, HENRY - - -	306	5th Feb. 1862	Improvements in machinery or apparatus for making the welts of hose or other articles made of looped or knitted fabrics.
JOHNSON, JEREMIAH - -	1365	7th May 1862	Apparatus for preventing collisions on railways.
JOHNSON, JOHN - - -	670	12th March 1862	Steam-boilers.
JOHNSON, JOHN CRESSWELL -	177	23rd Jan. 1862	Improvements in the manufacture of twist lace in twist lace machines.
JOHNSON, JOHN HENRY - -	3	1st Jan. 1862	Improvements in hose pipe joints or couplings. (Communicated by Thomas Braisted.)
JOHNSON, JOHN HENRY - -	196	25th Jan. 1862	Improvements in the prevention or removal of incrustation in or from steam-generators, and in the apparatus employed therein. (Communicated by Stanislas Michel Lecacheux and Bernard Sartre.)
JOHNSON, JOHN HENRY - -	319	6th Feb. 1862	Improvements in the preparation of pulp for paper. (Communicated by Paul Emile Mollet.)
JOHNSON, JOHN HENRY - -	357	11th Feb. 1862	Smoother-irons. (Communicated by Charles Jean Baptiste Eugène Cailloué.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	400	14th Feb. 1862	Machinery or apparatus for propelling ships and boats. (Communicated by Charles Arnaud and Joseph Labriola.)
JOHNSON, JOHN HENRY -	404	15th Feb. 1862	Improvements in electro-magnetic time-keepers. (Communicated by John Henry Koosen.)
JOHNSON, JOHN HENRY -	831	26th March 1862	Improvements in apparatus for cleaning tubes and flues of steam-boilers and similar conduits. (Communicated by Claude Dumas.)
JOHNSON, JOHN HENRY -	858	27th March 1862	Thrashing-machines. (Communicated by Auguste Bernard Albaret.)
JOHNSON, JOHN HENRY -	868	28th March 1862	Chaff-cutters. (Communicated by Auguste Bernard Albaret.)
JOHNSON, JOHN HENRY -	902	31st March 1862	Rotatory engines. (Communicated by Wilhelm Heinrich Christian Voss.)
JOHNSON, JOHN HENRY -	914	1st April 1862	Improvements in machinery or apparatus for spinning cotton and other fibrous substances. (Communicated by James Eaton.)
JOHNSON, JOHN HENRY -	1051	11th April 1862	Fire-arms. (Communicated by The Society Cordier and Company.)
JOHNSON, JOHN HENRY -	1110	16th April 1862	Improvements in machinery or apparatus for cutting the teeth of wheels, racks or segments. (Communicated by Ludwig Philipp Schultz, Carl Schultz, and Adolf Schultz.)
JOHNSON, JOHN HENRY -	1112	16th April 1862	Improvements in railway and common road carriages. (Communicated by Claude Marie Bathias.)
JOHNSON, JOHN HENRY -	1172	22nd April 1862	Apparatus for propelling and manœuvring ships. (Communicated by Jean Pierre Victor Le Rouge and Jacques Henri Charles De Berly.)
JOHNSON, JOHN HENRY	1185	23rd April 1862	Improvements in apparatus for taking deep sea soundings and for recording the speed of ships. (Communicated by William Trowbridge.)
JOHNSON, JOHN HENRY	1340	5th May 1862	Steam generators. (Communicated by Joseph Harrison.)
JOHNSON, JOHN HENRY	1350	6th May 1862	Improvements in the manufacture and production of minium or red lead. (Communicated by Charles Louis Pierre Burton.)
JOHNSON, JOHN HENRY	1352	6th May 1862	Improvements in the manufacture of soda and potash and of their carbonates. (Communicated by Charles Louis Pierre Burton.)
JOHNSON, JOHN HENRY	1422	12th May 1862	Improvements in casting metals and in the moulds and cores employed therein. (Communicated by Joseph Harrison.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	1433	13th May 1862	Improvements in the mode of carrying out submerged and other engineering works. (Communicated by François Durand.)
JOHNSON, JOHN HENRY -	1440	13th May 1862	Improvements in the purification of colza, rape and other oils. (Communicated by Charles Henri Michaud.)
JOHNSON, JOHN HENRY -	1607	28th May 1862	Improvements in the manufacture of tinned lead pipes and in the apparatus employed therein. (Communicated by Charles Felix Sebille.)
JOHNSON, JOHN HENRY -	1742	11th June 1862	Cradles or swing cots. (Communicated by Hans Nannestad.)
JOHNSON, JOHN HENRY -	1772	14th June 1862	Jacquard machinery. (Communicated by Michel Bouteille.)
JOHNSON, JOHN HENRY -	1798	18th June 1862	Projectiles. (Communicated by Benjamin Berkley Hotchkiss.)
JOHNSON, JOHN HENRY -	1879	26th June 1862	Construction of electro-voltaic plate work for medical and other purposes. (Communicated by Thomas Patten and Charles Mettam.)
JOHNSON, JOHN HENRY -	1880	26th June 1862	A new composite fluid to be used for illuminating purposes. (Communicated by Benjamin Hebard.)
JOHNSON, JOHN HENRY -	1961	8th July 1862	Wet gas meters. (Communicated by Joseph Jean Marçais.)
JOHNSON, JOHN HENRY -	1994	10th July 1862	Braiding-machines. (Communicated by Thomas James Sloan.)
JOHNSON, JOHN HENRY -	2009	12th July 1862	Machines or apparatus for washing ores and minerals. (Communicated by Victor Jules Baron and Albert Denis Baron.)
JOHNSON, JOHN HENRY -	2090	22nd July 1862	Improvements in the treatment of noxious gases or vapours produced in the distillation or purification of tar. (Communicated by Pierre Louis Joseph Smet.)
JOHNSON, JOHN HENRY -	2208	6th Aug. 1862	Construction of armour plates for ships and forts and applicable to other like purposes. (Communicated by Filip Bergendal.)
JOHNSON, JOHN HENRY -	2213	7th Aug. 1862	Blast-furnaces. (Communicated by Daniel Schwabe.)
JOHNSON, JOHN HENRY -	2278	13th Aug. 1862	Carts and other vehicles. (Communicated by Pierre Henri Dubrenil and Jean Baptist Dubrenil.)
JOHNSON, JOHN HENRY -	2305	15th Aug. 1862	Electro-magnetic time-keepers. (Communicated by John Henry Koosen.)
JOHNSON, JOHN HENRY -	2410	30th Aug. 1862	Coating or covering metallic surfaces with copper. (Communicated by Charles François Leopold Oudry.)
JOHNSON, JOHN HENRY -	2422	1st Sept. 1862	Improvements in the manufacture of braid and in machinery or apparatus employed therein. (Communicated by Thomas James Sloan.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	2423	1st Sept. 1862	Improvements in apparatus for regulating or controlling the working of motive-power engines, applicable also to the regulation of the flow of liquid, air or gas through pipes or conduits. (Communicated by Ernest Ulysse Parod.)
JOHNSON, JOHN HENRY -	2465	6th Sept. 1862	Fire-arms and projectiles. (Communicated by Louis Michel Descoutures.)
JOHNSON, JOHN HENRY -	2555	17th Sept. 1862	Gas burners. (Communicated by Jean Christophe Friedleben and Charles Bender.)
JOHNSON, JOHN HENRY -	2649	29th Sept. 1862	Shells for war purposes. (Communicated by Edwin Eastbrook.)
JOHNSON, JOHN HENRY -	2666	2nd Oct. 1862	Permanent way of railways. (Communicated by John Lackland.)
JOHNSON, JOHN HENRY -	2725	9th Oct. 1862	Improvements in polishing precious and other hard stones, and in the machinery or apparatus employed therein. (Communicated by Victor Emanuel Tamisier.)
JOHNSON, JOHN HENRY -	2726	9th Oct. 1862	Manufacture of paints or pigments. (Communicated by Charles François Leopold Oudry.)
JOHNSON, JOHN HENRY -	2775	14th Oct. 1862	Sewing-machines. (Communicated by David Wood Green Humphrey.)
JOHNSON, JOHN HENRY -	2808	17th Oct. 1862	Prevention or removal of incrustation in or from steam generators. (Communicated by The Society Lecacheux Sartre Bernard and Company.)
JOHNSON, JOHN HENRY -	2826	20th Oct. 1862	Apparatus for boiling liquids and cooking or preparing food, applicable also as a night light. (Communicated by Anthony Pollak.)
JOHNSON, JOHN HENRY -	2884	27th Oct. 1862	Rotatory engines. (Communicated by Wilhelm Henrich Christian Voss.)
JOHNSON, JOHN HENRY -	2885	27th Oct. 1862	Heating glass furnaces. (Communicated by Joseph Venini.)
JOHNSON, JOHN HENRY -	2979	4th Nov. 1862	Hanging, arranging and operating ordnance. (Communicated by John Ridgway.)
JOHNSON, JOHN HENRY -	3014	7th Nov. 1862	Decorticating grain and seeds. (Communicated by Jules Lemoine and Louis Joseph Maximilien Chollet.)
JOHNSON, JOHN HENRY -	3153	24th Nov. 1862	Improvements in burnishing metal surfaces and in the machinery or apparatus employed therein. (Communicated by Arthur Simon Joseph Miron.)
JOHNSON, JOHN HENRY -	3189	28th Nov. 1862	An apparatus for indicating the pressure of electric conductors in foreign bodies. (Communicated by Edmond Langlois.)
JOHNSON, JOHN HENRY -	3294	8th Dec. 1862	Construction of steam generators. (Communicated by Joseph François Berendorf.)
JOHNSON, JOHN HENRY -	3446	24th Dec. 1862	Apparatus for stamping or marking paper and other materials. (Communicated by Henri Bouquet.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY - -	3472	30th Dec. 1862	Improvements in ingot moulds employed in the casting of steel and other metals. (Communicated by Hippolyte Ulysse Petin and Jean Marie Gaudet.)
JOHNSON, JOHN ROBERT -	2459	5th Sept. 1862	Apparatus for taking photographic panoramic pictures.
JOHNSON, JOHN ROBERT -	2514	12th Sept. 1862	Machinery for manufacturing printing types.
JOHNSON, JOSEPH - - -	3257	4th Dec. 1862	Manufacture of warp fabrics.
JOHNSON, RICHARD - - -	359	11th Feb. 1862	Improvements in welded wires used for telegraphic and other purposes.
JOHNSON, ROBERT - - -	72	10th Jan. 1862	An improved composition for coating the bottoms of iron ships to prevent their fouling, and which composition may be used as a protective coating for wood, iron or other substances exposed to the action of sea water.
JOHNSON, THOMAS - - -	1498	17th May 1862	Machines for washing and cleansing casks.
JOHNSON, WILLIAM - - -	2992	5th Nov. 1862	Arrangement and construction of pillars or standards for supporting telegraph wires. (Communicated by Hugh Ross McKenzie.)
JOHNSON, WILLIAM BECKET -	483	22nd Feb. 1862	Steam-engines.
JOHNSTON, ALEXANDER - -	2433	2nd Sept. 1862	Improvements in machinery for pressing cotton and other materials, and in bands for retaining the same in bales.
JOHNSTON, JAMES - - -	1855	24th June 1862	Hats.
JOHNSTON, JOHN - - -	3470	30th Dec. 1862	Improved surface refrigerator.
JOHNSTON, WILLIAM - - -	193	25th Jan. 1862	Lamps.
JOHNSTON, WILLIAM - - -	485	24th Feb. 1862	Gas and other lamps and stoves.
JOHNSTONE, ALEXANDER -	632	8th March 1862	Machinery for pressing cotton. (Patented by John Fleming.)
JOINT STOCK COMPANY called [THE SOCIÉTÉ CHARTIER [ET COMPAGNIE.	2634	27th Sept. 1862	Certain new and improved applications of petroleum and its products, certain agents produced by combining the same with other substances, and certain modes of treating caoutchouc, gutta-percha and their compounds and substances similar thereto. (Patented by Michael Henry.)
JONES, HENRY - - -	2395	29th Aug. 1862	Breech-loading fire-arms.
JONES, JAMES - - -	862	28th March 1862	Apparatus for raising and forcing liquids.
JONES, JAMES GRAFTON -	2027	14th July 1862	Machinery and apparatus for ventilating mines and other places.
JONES, JOSIAH, jr. - - -	1013	9th April 1862	Improvements in constructing and arming ships and vessels.
JORDAN, HARPUR - - -	2545	16th Sept. 1862	Rotatory engines.
JORDAN, JOHN - - -	888	31st March 1862	Improvements in the construction of armour plated vessels or other like structures.
JÖRNS, HEINRICH - - -	3364	16th Dec. 1862	Clocks or time pieces.
JOSEPH, EMANUEL - - -	3064	13th Nov. 1862	Manufacture of brushes, brooms and mats.
JOSEPH, JOHN STEPHEN -	371	12th Feb. 1862	Improvements in coke ovens and in utilizing the waste heat from the same.
JOSEPH, JOHN STEPHEN -	376	13th Feb. 1862	An improved retort oven and the utilization of the spare heat from the same.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOUANNET, MARTIAL VICTOR	887	31st March 1862	Improvements in the manufacture from vegetable product of glucose or fermentable sugar. (Patented by Marc Antoine François Menmons.)
JOUANNIN, JEAN BAPTISTE [FRANÇOIS.	2108	24th July 1862	Machinery for the manufacture of fishing and other nets. (Patented by William Clark.)
JOUBERT, HENRI CHARLES [RÉNÉ.	1451	14th May 1862	Improvements in raising music chairs, stools or seats.
JOUBERT, HENRI CHARLES [RÉNÉ.	2886	27th Oct. 1862	An improved method of raising and fixing at any height desired music stools, chairs or seats.
JOURDAIN, GEORGE THOMAS -	1729	10th June 1862	Treating cocoa nut oil.
JOUVET, JEAN - - -	2165	30th July 1862	Gas burners. (Patented by William Clark.)
JOUVIN, JEAN PIERRE - -	1466	15th May 1862	An improved process for preserving iron-plated and other vessels and metallic articles from oxidation, and preventing ships' bottoms from fouling.
JOWETT, HENRY ALFRED -	2110	25th July 1862	Improvements in obtaining motive-power and in transmitting the same from place to place, and in apparatus connected therewith.
JOY, DAVID - - - -	283	3rd Feb. 1862	Improvements in machinery for forging metals, also applicable to other purposes.
JOYCE, ARTHUR JOHN - -	1722	9th June 1862	Lighting and heating.
JOZANSI, CLAUDE ANDRÉ, M.D.	1748	12th June 1862	A new or improved surgical injecting apparatus. (Patented by Frederick Tolhausen.)
JUDSON, WILLIAM - - -	1357	7th May 1862	The use of caoutchouc or india-rubber for and its application to guns, mortars or other fire-arms, to resist the force of the recoil and reaction in firing.
JUDSON, WILLIAM - - -	2949	31st Oct. 1862	Improvements applicable to the carriages and beds of guns, mortars and other ordnance. (Patented by William Edward Newton.)
JUHEL, HENRI - - - -	1307	3rd May 1862	Wheels. (Communicated by Mr. Mathurin Rives.)
JULLIEN, JOSEPH ALEXANDRE	1311	3rd May 1862	Sluice cocks.
JULLION, JOHN LOUIS - -	2142	28th July 1862	An improvement in antichloride for paper making.
JUMELLE, FREDERICK - -	2337	21st Aug. 1862	Governors for steam-engines. (Patented by George Davies.)

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ALPHABETICAL INDEX OF PATENTEEES

[Ken]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
K.			
KAST, JEAN-GEORGES - -	1864	25th June 1862	An improved lock or locking apparatus. (Patented by Frederick Tolhausen.)
KASTLI, LEONHARD - -	3304	9th Dec. 1862	Fire-arms. (Patented by William Edward Newton.)
KAY, GORDON MC - -	1113	16th April 1862	Sewing-machines. (Patented by John William Ford.)
KAY, JAMES CLARKSON - -	952	4th April 1862	Certain improvements in steam-engines.
KAY, RICHARD DUGDALE - -	3251	4th Dec. 1862	Manufacture or finishing of endless machine blankets or endless lappings for printing purposes.
KAY, ROBERT - - - -	783	21st March 1862	Certain improvements in the method of printing calico and other surfaces and in apparatus connected therewith.
KAY, ROBERT - . - -	871	29th March 1862	Certain improvements in printing calicoes and other surfaces and in apparatus connected therewith.
KAY, ROBERT - - - -	2558	18th Sept. 1862	Certain improvements in printing calico and other surfaces and in apparatus connected therewith.
KEAN, JESSE MOORE - -	2877	25th Oct. 1862	Construction of the joints of cast iron gas and water mains and other pipes. (Patented by William Clark.)
KEAN, JOHN MC - - -	233	29th Jan. 1862	Improvements in sizing or dressing yarns or textile materials.
KEAN, JOHN MC - - -	2978	4th Nov. 1862	Sizing or dressing yarns or textile materials.
KEATLEY, JOHN - - -	1697	5th June 1862	Lifting-jacks.
KEECH, THOMAS - . -	2693	6th Oct. 1862	Floating-batteries. (Communicated by James Hyde.)
KEELER, SAMUEL C. - -	2548	17th Sept. 1862	Veneer cutting machinery. (Communicated by John Sperry.)
KEELING, JOHN - - -	1718	9th June 1862	Apparatus for the manufacture of gas.
KEENE, CHARLES JOSEPH -	2093	23rd July 1862	A new or improved winding apparatus for raising and lowering canvas on casels.
KELLEY, JOHN COULTHARD -	369	12th Feb. 1862	Hooped skirts. (Patented by Andrew Hinshaw.)
KELLOGG, HENRY - - -	1985	10th July 1862	Breech-loading fire-arms and cartridges therefor.
KELLOW, JOSEPH - - -	1796	17th June 1862	Manufacture of blasting powder.
KEMP, ROBERT ALEXANDER -	1672	3rd June 1862	Harmoniums.
KEMP, WILLIAM - - -	944	3rd April 1862	Improvements in the manufacture of silk pile velvet.
KENDALL, JOSEPH BRADLEE -	567	1st March 1862	An improved horse shoe.
KENNEDY, JOHN - - -	1527	20th May 1862	Ship propellers.
KENNEDY, JOHN - - -	1531	21st May 1862	Improvements in plates for plating and for forming the outside skin of ships and vessels, and in protecting the same from fouling and oxidation.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KENNEDY, JOHN - - .	1546	22nd May 1862	Improvements in protecting the sides and decks of ships from the effects of projectiles.
KENNEDY, THOMAS - -	2613	25th Sept. 1862	Taps or valves.
KENNEDY, WILLIAM SADLER -	2806	17th Oct. 1862	An improved method of and apparatus for applying fomentations and other external remedies to the throat.
KENNELLY, DAVID JOSEPH -	2788	15th Oct. 1862	Improvements in refrigerating and freezing and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
KENT, GEORGE - - -	3022	8th Nov. 1862	Apparatus for reducing cocoa berries and other vegetable and animal substances to powder or pulp, and for mashing potatoes.
KENT, JOHN - - - -	700	13th March 1862	Cleansing and bleaching. (Partly communicated by Theodore Schnebely.)
KENYON, JOHN - - -	79	10th Jan. 1862	Improvements in railway signalling by electricity and in the arrangement of apparatus for that purpose.
KENZIE, ALEXANDER MC -	327	7th Feb. 1862	Sewing-machines.
KENZIE, GEORGE MC - -	548	28th Feb. 1862	Improvements in machinery or apparatus for the manufacture of bobbins or holders for textile materials.
KENZIE, HUGH MC - -	1843	23rd June 1862	Improvements in cylindrical or circular brushes or rollers for various manufacturing machines.
KENZIE, HUGH ROSS MC -	2992	5th Nov. 1862	Arrangement and construction of pillars or standards for supporting telegraph wires. (Patented by William Johnson.)
KER, MATTHEW - - -	3460	29th Dec. 1862	An improvement in wardrobes or other pieces of furniture or fittings with glass silvered doors or panels, used for toilet purposes.
KERAUTRET, JULES - -	656	11th March 1862	Improvements in the construction and ornamentation of buildings by the use of which hewn stone and faced bricks are dispensed with in some parts thereof.
KERAUTRET, OLIVIER - -	656	11th March 1862	Improvements in the construction and ornamentation of buildings by the use of which hewn stone and faced bricks are dispensed with in some parts thereof.
KESSELMEYER, CHARLES WIL- [LIAM.	1321	3rd May 1862	Looms for weaving.
KESSELMEYER, CHARLES WIL- [LIAM.	3023	8th Nov. 1862	Looms for weaving.
KEY, GILBERT TROWARD -	2874	25th Oct. 1862	Fog and other signals.
KEY, JOHN - - - -	1661	2nd June 1862	Certain means of producing designs in iron, and in the application of the same or designs formed in like manner of other metals to the manufacturing and ornamenting of bedsteads and other metal articles of furniture.
KEY, JOHN - - - -	2282	14th Aug. 1862	An improvement or improvements in the manufacture of plain and ornamental metallic pillars for bedsteads, cots, couches, tables and other like purposes.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KEYEN, JEAN HUBERT - -	2681	4th Oct. 1862	Improved means or apparatus by the use of which pierced or perforated cocoons may be spun. (Patented by William Edward Gedge.)
KEYWORTH, THOMAS - -	3179	27th Nov. 1862	Motive-power machinery.
KIDD, JOHN HOWARD - -	1597	28th May 1862	An improved manufacture of compositions applicable for waterproofing fabrics, for coating and protecting various articles and for various other purposes.
KIDD, JOSHUA - - -	1955	7th July 1862	Gas-meters.
KIESLING, CARL LOUIS - -	3293	8th Dec. 1862	Improved means of renewing worn out and partially worn out files and rasps.
KIESLING, JULIUS ALBERT -	3293	8th Dec. 1862	Improved means of renewing worn out and partially worn out files and rasps.
KILNER, CALEB - - -	3110	19th Nov. 1862	Means or apparatus for the manufacture of glass.
KILNER, GEORGE - - -	3110	19th Nov. 1862	Means or apparatus for the manufacture of glass.
KILNER, JOHN - - -	3110	19th Nov. 1862	Means or apparatus for the manufacture of glass.
KILNER, WILLIAM - - -	3110	19th Nov. 1862	Means or apparatus for the manufacture of glass.
KILSHAW, HENRY - - -	3016	8th Nov. 1862	Certain improvements in power looms for weaving.
KINDER, ARTHUR - - -	1384	8th May 1862	Improvements in the manufacture of sheet metal.
KING, JAMES - - -	1655	2nd June 1862	Certain improvements in looms for weaving.
KING, JAMES JOHN - - -	286	3rd Feb. 1862	Improvements in the fastenings of bedsteads, which fastenings are also applicable to other portable framework.
KING, JOHN - - -	301	5th Feb. 1862	Improvements in lubricators for lubricating the moving parts of machinery.
KING, JOHN - - -	1379	8th May 1862	Apparatus for tilling land by steam-power.
KING, JOHN - - -	1695	28th June 1862	Agricultural machines.
KING, JOHN - - -	3316	10th Dec. 1862	Apparatus used for signalling on railways.
KING, THOMAS - - -	523	26th Feb. 1862	Improvements in apparatus for controlling the flow of fluids for flushing water-closets.
KING, THOMAS - - -	1695	28th June 1862	Agricultural machines.
KING, THOMAS - - -	2088	22nd July 1862	Apparatus for measuring malt, grain and other granular substances.
KINGSFORD, COURTENAY -	512	25th Feb. 1862	A new composition for the manufacture of bread.
KINLOCK, JOHN - - -	1726	10th June 1862	Looms for weaving.
KIRBY, EDWARD - - -	3075	15th Nov. 1862	A new or improved pulley for tightening the cords of window and other blinds.
KIRBY, THOMAS FREESTON -	2302	15th Aug. 1862	Garments for gentlemen and ladies' wear.
KIRK, ALEXANDER CARNEGIE	1218	25th April 1862	Refrigerating apparatus.
KIRK, ROBERT - - -	3352	15th Dec. 1862	Machinery or apparatus for checking or stopping the motion of railway carriages.
KIRKHAM, THOMAS NESHAM -	492	24th Feb. 1862	Improvements in bleaching and dying yarn and thread when in the form of cops or otherwise wound.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KIRKMAN, FELTON CHARLES -	1512	19th May 1862	A new and improved joint for uniting or fixing posts and rails of bedsteads and other articles of furniture, posts and rails in fencing, in the construction of framework for conservatories, emigrants' and other portable houses.
KIRKWOOD, JAMES - - -	472	22nd Feb. 1862	Looms for weaving.
KITCHIN, JOSEPH - - -	2385	28th Aug. 1862	Ventilators.
KITE, WILLIAM THOMAS -	42	6th Jan. 1862	Improvements in the manufacture of starch and in apparatus employed therein.
KLEIN, JOHANN GEORG -	823	25th March 1862	An improved fastening for purses, pocket-books, bags and other articles. (Patented by Albert Marcius Silber.)
KLEIN, PHILIPPE HUBERT -	3094	18th Nov. 1862	Machinery for turning or shaping metals or other substances.
KLOTH, ALOYS - - -	988	7th April 1862	Improved apparatus for indicating a deficiency of water in steam generators.
KNEELAND, WILLIAM CHE- [VERS.]	39	6th Jan. 1862	An improved manufacture of cigars. (Patented by Alfred Vincent Newton.)
KNIGHT, JOHN ADAMS - -	118	16th Jan. 1862	Improvements in machinery for dressing millstones by means of a diamond cutter. (Communicated by John Dickinson.)
KNIGHT, JOHN ADAMS - -	151	21st Jan. 1862	Improvements in the permanent way of railways. (Communicated by Hiram Carpenter.)
KNIGHT, JOHN ADAMS - -	334	8th Feb. 1862	Washing-machines. (Communicated by Riley Porter Wilson.)
KNOLL, CHARLES LOUIS -	526	26th Feb. 1862	Pianofortes.
KNOWELDEN, JOHN - -	1016	9th April 1862	Improvements in steam, water and other fluid engines.
KNOWLES, ARTHUR - -	1723	9th June 1862	Apparatus for washing extracted wool and other fibre.
KNOWLES, MARK - - -	3199	29th Nov. 1862	Looms for weaving.
KNOWLES, THOMAS - -	1047	11th April 1862	Looms for weaving.
KNOWLES, THOMAS - -	2309	16th Aug. 1862	Racks for window-blinds.
KNOWLES, THOMAS - -	2593	23rd Sept. 1862	Looms for weaving.
KNOWLES, THOMAS - -	3369	17th Dec. 1862	Certain improvements in machinery or apparatus to be employed in preparing and spinning cotton and other fibrous substances.
KNOWLES, WILLIAM - -	1047	11th April 1862	Looms for weaving.
KNOWLES, WILLIAM - -	2593	23rd Sept. 1862	Looms for weaving.
KNOX, JOHN REYNOLDS -	603	5th March 1862	An improved process and apparatus for reducing wood, straw and other vegetable substances to pulp, for the manufacture of paper. (Patented by William Edward Newton.)
KNOX, ROBERT - - -	3451	24th Dec. 1862	Manufacture of metallic pens.
KNUDSEN, FREDERICK - -	912	1st April 1862	Chronometers.
KOBITZSCH, RICHARD ALEX- [ANDER.]	977	5th April 1862	Improvements in diving apparatus, and apparatus to be used for working in deep water.

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ALPHABETICAL INDEX OF PATENTEEES

[Kyl]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KOBITZSCH, RICHARD ALEX- [ANDER.	2687	4th Oct. 1862	Improvements in diving apparatus and apparatus to be used for working in deep water. (Patented by Frederick Ernest Blatspiel.)
KOHN, FERDINAND - -	2908	29th Oct. 1862	Hydrostatic presses.
KOHN, HERMANN - - -	1292	2nd May 1862	A new method of making any kind of stuffs, textures or fabrics waterproof.
KOLBENHEYER, EMERICH -	1411	10th May 1862	An improved apparatus for making ices and cold beverages.
KOOPEN, JOHN HENRY - -	404	15th Feb. 1862	Electro-magnetic timekeepers. (Patented by John Henry Johnson.)
KOOPEN, JOHN HENRY - -	2305	15th Aug. 1862	Electro-magnetic time-keepers. (Patented by John Henry Johnson.)
KOPISCH, CARL GOTTLIEB -	3085	13th Nov. 1862	Improved apparatus for propelling, steering and ventilating vessels.
KOTTULA, CONSTANTINE [NICOLAUS.	714	15th March 1862	Improvements in the manufacture of combined soaps.
KRASUSKI, JOSEPH - - -	466	21st Feb. 1862	An improved apparatus for controlling fiery horses.
KROMSCHROEDER, HENRY [HERMAN.	650	10th March 1862	Gas meters.
KROMSCHROEDER, HENRY [HERMAN.	2846	22nd Oct. 1862	Improvements in the manufacture of gas meters, and in the manufacture of sheet metal suitable for gas meters.
KROMSCHROEDER, JOHN FREDERICK [DERICK GUSTAV.	2846	22nd Oct. 1862	Improvements in the manufacture of gas meters, and in the manufacture of sheet metal suitable for gas meters.
KRUPP, ALFRED - - -	762	19th March 1862	Certain improvements in the method of manufacturing shafts for steamboats and other purposes.
KRUPP, ALFRED - - -	1116	17th April 1862	Certain improvements in the manufacture of screw propellers.
KRUPP, ALFRED - - -	2910	29th Oct. 1862	Certain improvements in breech-loading ordnance and fire-arms.
KUGLER, HERR - - -	636	8th March 1862	An improved fastening for albums and other books, bags, reticules and other articles. (Patented by John James Henry Gebhardt.)
KURTS, MANILIAS - - -	2043	17th July 1862	A new or improved material to be used in the manufacture of handles for umbrellas, parasols and walking sticks.
KURZ, HERMANN CHRISTIAN	1169	22nd April 1862	Improvements in the preparation of dried yeast. (Patented by Charles Earp Elliott.)
KYLE, DAVID DUNNE - -	411	15th Feb. 1862	An improved method of communicating or signalling in and with railway trains.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
L.			
LA BASTIDA, EUGENE DE -	1542	22nd May 1862	A new process for the production of designs in relieve, and in deepening on sheets of india-rubber of any length whatever. (Communicated by Messrs. Albert Cohen and Charles Vaillant.)
LA BASTIDA, EUGENIO DE -	2566	19th Sept. 1862	An improved cover for chimneys adapted to prevent them from smoking and to facilitate the extinguishing of fires therein. (Communicated by Mr. Auguste Louis Cesar de Montagu.)
LA BROSE, CHARLES AMÉDÉE [DE LAIRE DE.	1606	28th May 1862	Improvements in circular looms or machinery for the manufacture of looped or knitted fabrics. (Patented by Richard Archibald Brooman.)
LA PEYROUSE, LÉO DE -	830	26th March 1862	Improvements in the preservation of animal substances.
LA PEYROUSE, LÉO DE	1385	8th May 1862	Improvements in treating neutral and acid fatty or oily substances, resins and resinous substances and compounds or products containing paraffine.
LA RUE, THOMAS DE - -	2235	9th Aug. 1862	Manufacture of pigments and writing inks.
LA VALETTE, JEAN ANTOINE [ALEXIS CAMBON DE.	2006	12th July 1862	Certain improvements in vessels mounted as floating batteries. (Patented by Marc Antoine François Mennons.)
LABRIOLA, JOSEPH - -	400	14th Feb. 1862	Machinery or apparatus for propelling ships and boats. (Patented by John Henry Johnson.)
LACHENAL, ELIZABETH - -	2390	28th Aug. 1862	Gas-meters. (Communicated by Louis Lachenal.)
LACHENAL, LOUIS - - -	2390	28th Aug. 1862	Gas-meters. (Patented by Elizabeth Lachenal.)
LACHLAN, LACHLAN MC -	1222	25th April 1862	Improvements in governing or regulating light used for taking photographic portraits and other photographic pictures, part of which improvements is also applicable to lighting picture galleries.
LACKLAND, JOHN - - -	2666	2nd Oct. 1862	Permanent way of railways. (Patented by John Henry Johnson.)
LACOMBE, FRANÇOIS HENRY MARIE CÔME DAMIENS [CHEVALIER DE FENIS DE.	2212	7th Aug. 1862	Means of lighting towns and other localities, and of ventilating, warming and providing the same with water.
LAFARGE, JEAN JACQUES LEO- [FOLD ROUSSEAU DE	2596	23rd Sept. 1862	Photographic apparatus. (Patented by Richard Archibald Brooman.)
LAHOUSSE, ADOLPHUS - -	252	30th Jan. 1862	Improvements in the manufacture of wheels for waggons, locomotive engines and other vehicles used for railway purposes.
LAHOUSSE, ADOLPHUS - -	2119	25th July 1862	An improved construction of railway wheel.
LAKIN, ROBERT - - -	2544	16th Sept. 1862	Mode of plating or shielding ships of war.
LAKIN, ROBERT - - -	3442	24th Dec. 1862	Machines for spinning and for doubling cotton and other fibrous materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAMB, ANDREW - - -	145	20th Jan. 1862	Life boats.
LAMB, DAVID ALEXANDER -	1644	31st May 1862	Railway buffers or apparatus to relieve concussions on railways.
LAMB, HENRY - - -	1608	28th May 1862	Improvements in burning limestone and generating steam.
LAMB, JOHN - - -	3306	10th Dec. 1862	Manufacture of tissue paper for transferring patterns and designs.
LAMBERT, ERNEST - -	1269	30th April 1862	Improvements in the manufacture of nails, screws and other analogous articles in malleable cast iron. (Patented by George Davies.)
LAMBERT, THOMAS SCOTT -	449	20th Feb. 1862	An improvement in tourniquets. (Patented by George Frederick Lee.)
LAMIABLE, AMAND ATHANASE	1484	16th May 1862	Improvements in cementing cast and wrought iron to obtain cast steel.
LAMING, RICHARD - - -	1482	16th May 1862	Improvements in constructing and using electric telegraphs.
LAMOTTE, XAVIER - -	1317	3rd May 1862	Improvements in the process of and apparatus for preparing materials for the manufacture of paper, and in obtaining products from agents used in the said process, part of the invention being also applicable to apparatus for washing. (Patented by Michael Henry.)
LAMPLOUGH, HENRY - -	504	25th Feb. 1862	Improved means for viewing microscopic photographs and other minute objects.
LANCASTER, CHARLES WIL- [LIAM.	284	3rd Feb. 1862	Improvements in strengthening cast-iron ordnance.
LANCELOTT, JAMES - -	1767	14th June 1862	Manufacture of ornamental chains from sheet metal.
LANCELOTT, JAMES - -	2244	11th Aug. 1862	Manufacture of ornamental chains from sheet metal.
LANDMANN, JEAN MARIE -	1046	11th April 1862	Hydraulic engines.
LANGEN, EMIL - - -	423	17th Feb. 1862	An improved method of and apparatus for collecting the gases given off from furnaces. (Patented by Edward Thomas Hughes.)
LANGEN, EMIL - - -	2148	29th July 1862	An improved process of refining the slag from blast, puddling and other furnaces, and the employment of the refined material for mortar, stones, slabs, ornaments and other similar articles. (Patented by Edward Thomas Hughes.)
LANGEN, EUGÈNE - - -	2584	20th Sept. 1862	Improvements in steam-boiler and other furnaces, and in apparatus for feeding the same. (Patented by Alexander Prince.)
LANGLOIS, EDMOND - -	3189	28th Nov. 1862	An apparatus for indicating the pressure of electric conductors in foreign bodies. (Patented by John Henry Johnson.)
LANGRAN, JAMES - - -	2259	12th Aug. 1862	Apparatus for driving agricultural machinery.
LANGSTON, JOHN - - -	1014	9th April 1862	Improvements in the manufacture of Portland cement.
LANOI, FRANÇOIS MARIE -	1778	16th June 1862	An improved geodetic or topographic instrument intended to combine in one all the instruments now used in surveying.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LANSEDELL, LAWSON - -	1355	6th May 1862	Harrows.
LANSKY, ERNST FERDINAND -	1490	12th May 1862	An improved mode of and apparatus for working railway carriage brakes.
LANZIROTTI, JEAN ANTOINE -	1445	13th May 1862	An improved means or apparatus for shunting trains. (Patented by Richard Archibald Brooman.)
LANZIROTTI, JEAN ANTOINE -	3063	13th Nov. 1862	An improved means or apparatus for shunting trains. (Patented by Richard Archibald Brooman.)
LAPPARENT, HENRI DE - -	328	7th Feb. 1862	Improvements in preserving timber which are particularly applicable to the timbers of ships or other maritime structures. (Patented by William Clark.)
LAPPARENT, HENRI DE - -	3184	27th Nov. 1862	Preservation of animal and vegetable substances. (Patented by William Clark.)
LARDY, HUGH MC - - -	3163	25th Nov. 1862	Steam-engines. (Patented by George Henderson.)
LARMANJAT, JEAN - - -	365	12th Feb. 1862	Construction of vertical steam-boilers. (Patented by Frederick Tolhausen.)
LASCHI, MAURICE - - -	2199	5th Aug. 1862	Improvements in the purification of water and in apparatus employed therein. (Patented by William Clark.)
LASSERRE, VALENTIN - -	2316	18th Aug. 1862	Improvements in connecting plates, sheets or slabs of metal or other materials and fastening the same on to framing applicable to armour plating for ships, vessels or batteries, and to roofing and other similar purposes. (Patented by William Edward Newton.)
LATHAM, FREDERICK 'CART- [WRIGHT WARD.	667	12th March 1862	Certain improvements in machinery or apparatus for perforating and numbering paper or other substances to be employed as "tickets" or where other "counter registration" is required.
LATHAM, FREDERICK CART- [WRIGHT WARD.	668	12th March 1862	Certain improvements in machinery or apparatus for cutting paper, pasteboard and other similar substances.
LATHAM, ROBERT MARSDEN -	1448	13th May 1862	Steering-apparatus. (Communicated by David L. Allen.)
LATHAM, WILLIAM HENRY -	667	12th March 1862	Certain improvements in machinery or apparatus for perforating and numbering paper or other substances to be employed as "tickets" or where other "counter registration" is required.
LATHAM, WILLIAM HENRY -	668	12th March 1862	Certain improvements in machinery or apparatus for cutting paper, pasteboard and other similar substances.
LATTER, LEONARD - - -	3376	17th Dec. 1862	Ploughs.
LAUREAU, LEONARD - - -	3468	29th Dec. 1862	Preserving organic substances from decay. (Patented by William Edward Newton.)
LAURENT, SÉRAPHIN HONORÉ	2599	23rd Sept. 1862	An improved railway brake.
LAUTH, BERNARD - - -	2613	18th Oct. 1862	Machinery or apparatus for polishing sheet iron or other metal.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAUTURE, PIERRE HENRI [STANISLAS Count [D'ESCAYRAC DE.	2225	8th Aug. 1862	Signalling. (Patented by William Clark.)
LAUTURE, PIERRE HENRI [STANISLAS Count [D'ESCAYRAC DE.	2602	24th Sept. 1862.	Signalling. (Patented by William Clark.)
LAVEISSIERE, JULES JOSEPH -	3001	5th Nov. 1862	Manufacture of tubes of copper or other metals or alloys.
LAVENDER, ROBERT - -	786	21st March 1862	Improvements in means for generating steam.
LAVIGNE, LEOPOLD EUGÈNE -	908	1st April 1862	Manufacture of manure. (Patented by William Clark.)
LAVIGNE, LEOPOLD EUGÈNE -	2542	16th Sept. 1862	Improvements in the treatment of peat and peat tar for the production or manufacture of various products, and in apparatus for the same. (Patented by William Clark.)
LAVOINE, JEAN BAPTISTE -	3027	10th Nov. 1862	A kitchen range adapted for cooking, warming the apartments, and generating gas for the use of private families, hotels or gentlemen's country seats.
LAW, GEORGE HENRY - -	406	15th Feb. 1862	Improvements in the construction of steam and other boilers.
LAW, GEORGE HENRY - -	1227	26th April 1862	Improved means for draining flower pots and other articles or things which require draining in the same or a similar manner.
LAWDEN, THOMAS TIPPING -	1648	31st May 1862	Improvements in certain descriptions of single and double barrelled guns.
LAWRENCE, GEORGE - -	605	6th March 1862	Improvements in the manufacture of flesh-gloves and flesh-straps.
LAWSON, JOHN - - -	1003	8th April 1862	Improvements in balling cotton and thread. (Communicated by Adolphe Alphonse Poullier.)
LAWSON, JOHN - - -	1840	21st June 1862	Manufacture of carpets and other piled fabrics.
LAWTON, JOHN - - -	386	13th Feb. 1862	Improvements in the manufacture of flannel for shirtings and other articles of apparel.
LAWTON, JOSEPH FEARNES -	386	13th Feb. 1862	Improvements in the manufacture of flannel for shirtings and other articles of apparel.
LAWTON, NATHANIEL - -	1621	29th May 1862	Engines for carding cotton and other fibrous materials.
LAYBOURNE, JOHN - - -	943	3rd April 1862	An improvement in railway crossings.
LE BOURG, CHARLES AUGUSTE	880	27th March 1862	Improvements in the means of producing imitation mosaics. (Patented by George Henry Birkbeck.)
LE BRÉTON, ELIE JEAN [MARIE.	2652	30th Sept. 1862	An improved propeller for boats and ships.
LE CLERC, FRÉDÉRIC - -	2913	29th Oct. 1862	Improvements in the treatment of copper ores and in apparatus for the same. (Patented by William Clark.)
LE COEUR, EMILE ADRIEN -	1606	28th May 1862	Improvements in circular looms or machinery for the manufacture of looped or knitted fabrics. (Patented by Richard Archibald Brooman.)
LE CONTE, FELIX - - -	2408	30th Aug. 1862	Construction of furnaces for steam-boilers used in sugar-mills, distilleries, breweries and other mills or factories.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
L'HERMITTE, BAPTISTE - -	1504	17th May 1862	A new safety lock. (Patented by Charles Hippolyte Tessier.)
L'HEUREUX, CHARLES AL- [PHONSE.	1189	23rd April 1862	Improvements in the manufacture of imitation lace net or open-work fabrics. (Patented by William Edward Newton.)
L'HEUREUX, EUGENE VICTOR	1189	23rd April 1862	Improvements in the manufacture of imitation lace net or open-work fabrics. (Patented by William Edward Newton.)
L'HEUREUX, LUCIEN HENRI -	1189	23rd April 1862	Improvements in the manufacture of imitation lace net or open-work fabrics. (Patented by William Edward Newton.)
LE MAT, FRANÇOIS ALEXAN- [DRE.	1081	15th April 1862	Improvements in the construction of revolving and repeating fire-arms, part of which invention is also applicable to other arms.
LE MESURIER, THOMAS HENRY	1463	15th May 1862	Raising sunken vessels and other heavy bodies.
LE ROUGE, JEAN PIERRE [VICTOR.	1172	22nd April 1862	Apparatus for propelling and manœuvring ships. (Patented by John Henry Johnson.)
LE ROUGE, JEAN PIERRE [VICTOR.	3344	13th Dec. 1862	Fitting or applying propellers to ships and other vessels. (Patented by Michael Henry.)
LE SOUËF DUDLEY, CHARLES	1225	26th April 1862	An improvement in the manufacture of nails, bolts, rivets, screws, eyes and split keys or pins. (Communicated by John Schubert.)
LE SOUËF, DUDLEY CHARLES	1497	16th May 1862	Embossing metal plates. (Communicated by Wenzel Seidau.)
LEA, THOMAS - - -	1166	22nd April 1862	Burglary alarms or indicators.
LEA, WILLIAM - - -	2618	25th Sept. 1862	Hinges for French casements.
LEAN, JOHN MC - - -	3412	22nd Dec. 1862	Improved apparatus or arrangements for obtaining oil and other products from shale and the like bituminous minerals.
LEATHER, GEORGE HENRY -	1850	24th June 1862	Machinery or apparatus for combing wool, hair, silk, cotton, flax and other fibrous substances.
LEAVITT, CHARLES - -	2230	9th Aug. 1862	Carriage wheels. (Patented by George Haseltine.)
LEBARGY, HENRI JOSEPH -	551	28th Feb. 1862	Manufacture of hats and bonnets. (Patented by Richard Archibald Brooman.)
LEBASTIDA, EUGÈNE DE -	1924	2nd July 1862	A new method of manufacturing india-rubber articles by the simultaneous combination of pressure and vulcanisation. (Communicated by Messrs. Albert Cohen and Charles Vaillant.)
LEDEAUX, JEAN LOUIS - -	689	13th March 1862	Improvements in furnaces for consuming smoke. (Patented by Edward Thomas Hughes.)
LEBLOND, JEAN FRÉDÉRIC [JOURNAUX.	2260	12th Aug. 1862	Sewing-machines.
LECACHEUX - - - -	2808	17th Oct. 1862	Prevention or removal of incrustation in or from steam generators. (Patented by John Henry Johnson.)
LECACHEUX, STANISLAS MICHEL	196	25th Jan. 1862	Improvements in the prevention or removal of incrustation in or from steam generators and in the apparatus employed therein. (Patented by John Henry Johnson.)

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LECOINTE, JULES - - -	3082	15th Nov. 1862	Hydraulic pumps. (Patented by James Wilson.)
LEDGER, HENRY - - -	2811	18th Oct. 1862	An improved substitute for tombstones, tablets, monuments and other similar memorials or commemorative records.
LEE, DAVID THORPE - - -	2179	1st Aug. 1862	Ornamenting surfaces of wood and of papier mâché.
LEE, GEORGE FREDERICK - -	449	20th Feb. 1862	An improvement in tourniquets. (Communicated by Thomas Scott Lambert.)
LEE, GEORGE LAWRENCE - -	2540	16th Sept. 1862	Manufacture of metallic shutters for shop fronts, doors and windows.
LEE, HENRY CLAY - - -	1064	14th April 1862	Knitting-machines.
LEE, JAMES DENBY - - -	1615	29th May 1862	Looms for weaving.
LEE, JESSE - - - -	307	5th Feb. 1862	Traction engines.
LEE, JESSE - - - -	1514	19th May 1862	Improvements in the construction of traction engines.
LEE, JOSEPH - - - -	947	3rd April 1862	Improvements in traction engines and boilers for traction, locomotive and other purposes.
LEE, JOSEPH - - - -	2678	4th Oct. 1862	Traction engines and boilers for traction, locomotive and other purposes.
LEE, WELLINGTON - - -	226	28th Jan. 1862	Improvements in engines to be employed for pumping or forcing air or water or for other purposes where a rectilinear motion is required. (Patented by William Edward Newton.)
LEE, WILLIAM - - - -	2678	4th Oct. 1862	Traction engines and boilers for traction, locomotive and other purposes.
LEEMING, JOHN - - - -	1991	10th July 1862	Jacquard or index machines.
LEES, JOHN - - - -	430	18th Feb. 1862	An improved trap for catching rats, mice, birds and other animals alive.
LEES, JOHN PIPLER - - -	2003	12th July 1862	Certain improvements in carding-engines.
LEETCH, JAMES - - - -	2100	24th July 1862	New and improved methods of protecting the surfaces of iron or other metal work from oxidation, incrustations or accumulations of any kind, more especially in the cases of ships' bottoms, steam-boilers, and machinery.
LEFEBVRE, JULES - - -	2976	4th Nov. 1862	A new or improved instrument for indicating angles or variations of level and for measuring horizontal and vertical distances.
LEFEBVRE, LOUIS - - -	2409	30th Aug. 1862	Machinery or apparatus for manufacturing velvet. (Patented by William Edward Gedge.)
LEFEBVRE, PIERRE VICTRICE	1324	3rd May 1862	Fountain-pens.
LEFFLER, CARL JOHAN LAU- [RENTZ.]	3381	17th Dec. 1862	Constructing armour for ships and fortifications.
LEFORT, FRANÇOIS JOSEPH [LALMAND.]	200	25th Jan. 1862	Improved mechanical arrangements constituting a secret and invisible safety lock applicable to iron safes and other depositories.
LEFRANC, FRANÇOIS HENRY -	2396	29th Aug. 1862	Manufacture of casks.
LEGAT, DÉSIRÉ MATHURIN -	3150	24th Nov. 1862	Means of obtaining a vacuum or partial vacuum as applied in the manufacture of paper. (Patented by William Clark.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LÉGER, EMILE - - -	3489	24th Dec. 1862	Improvements in the means of applying heat to the feet in boots, shoes and otherwise, part of which improvements is applicable to other heating purposes. (Patented by William Clark.)
LEGRIS, PAUL NICOLAS - -	818	24th March 1862	Certain improvements in machinery for the production of ornamental stitching or embroidery. (Patented by Marc Antoine François Mennons.)
LEIGH, EVAN - - - -	1272	30th April 1862	Improvements in the construction of ships and floating batteries, in mounting their guns and in the application of steam power, parts of which improvements are also applicable to land batteries and forts.
LEIGH, EVAN - - - -	3154	24th Nov. 1862	Cotton gins.
LEIGH, LEVI - - - -	1820	20th June 1862	Improvements in the construction of steam-boilers and in apparatus connected therewith, part of which is applicable to ship building.
LEIGH, LEWIS - - - -	2547	17th Sept. 1862	Certain machinery for stretching and glossing silk, wool and other fibrous materials.
LEIGHTON, CROSBY - - -	315	6th Feb. 1862	Improvements in the construction of life boats, applicable also to ships' boats, gun boats and other vessels.
LEINS, LOUIS - - - -	1536	21st May 1862	Improvements in travelling bags and apparatus used therewith.
LEMAIRE-DAIMÉ, M. - - -	586	27th Feb. 1862	Improvements in the method of making cigarettes and in the apparatus and materials to be employed therein. (Patented by William Smith.)
LEMAISTRE, TOUSSAINT - -	2105	24th July 1862	Privies.
LEMERCIER, ANAIS - - -	1469	15th May 1862	Apparatus for consuming smoke. (Patented by George Henry Birkbeck.)
LEMOINE, JULES - - - -	432	18th Feb. 1862	Cartridges. (Patented by Michael Henry.)
LEMOINE, JULES - - - -	3014	7th Nov. 1862	Decorticating grain and seeds. (Patented by John Henry Johnson.)
LEMON, JOSEPH JAMES - - -	3358	16th Dec. 1862	Book trays or holders.
LEMOULT, HYACINTHE LEON -	1950	5th July 1862	Hollow plates for hydraulic presses. (Patented by Richard Archibald Brooman.)
LEMUT, FIRMIN - - - -	237	29th Jan. 1862	Machinery for puddling metals. (Patented by Richard Archibald Brooman.)
LENNAN, WILLIAM - - - -	1735	11th June 1862	An improved safety stirrup.
LENZBERG, LOUIS - - - -	3103	19th Nov. 1862	Apparatus for raising and lowering venetian and other blinds.
LEOD, ALEXANDER CHARLES [MAC	644	10th March 1862	Improvements in ventilating hats and coverings for the head.
LÉON, ISOPY - - - -	1628	30th May 1862	An improved curb or rein for enabling riders or drivers to stop restive or runaway horses.
LEOPARD, WILLIAM - - -	935	2nd April 1862	Railway brake apparatus.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEPAINTEUR, EDMOND - -	281	1st Feb. 1862	Improved processes for the recovery of the oleic acid contained in the residual scouring waters of woollen and other textile materials or fabrics. (Patented by Marc Antoine François Menons.)
LEPAINTEUR, EDMOND - -	3383	18th Dec. 1862	Improvements in the fabrication of a salt for dyeing textile materials.
LEPLANGUAIS, PIERRE FERDINAND.	1858	24th June 1862	Improvements in hernial and other orthopedic apparatus and in pessaries and other instruments. (Patented by William Clark)
LEPLAY, ABSALON HIPPOLYTE	2061	19th July 1862	Improvements in revivifying animal black, in apparatus employed therein, and in recovering a product employed in the revivification. (Patented by Richard Archibald Brooman.)
LEBENARD, AUGUSTE AIMÉ -	1749	12th June 1862	A new and improved cement or mastic for making joints of steam, water or gas pipes or chambers.
LEROUX, CHARLES HENRY FERDINAND.	1276	30th April 1862	Improvements in the construction of couches or settees for the purpose of sitting, lying, or reclining upon. (Patented by George Henry Birkbeck.)
LEROYER, GERMAIN AUGUSTE	3432	24th Dec. 1862	Instruments for surveying and levelling. (Patented by George Henry Birkbeck.)
LESAGE, LOUIS AMAND - -	3308	10th Dec. 1862	An improved method of preparing jellies and jams.
LESCHOT, JEAN RODOLPHE -	2441	3rd Sept. 1862	Improvements in tools for boring and in apparatus for working the same. (Patented by Richard Archibald Brooman.)
LESLIE, ALEXANDER - -	2028	15th July 1862	Apparatus for applying steam or other motive-power to cultivate the soil and to actuate wheeled carriages.
LESTER, AARON - - -	1237	26th April 1862	Improvements in the manufacture of the fronts or uppers of slippers, shoes, boots and gaiters, and of mats, bags, fire-screens and various other articles which are usually made of ornamental or berlin needle-work.
LETCHFORD, ROBERT MICHAEL	1575	26th May 1862	An improvement in the manufacture of matches.
LEVICK, FREDERICK - -	2206	6th Aug. 1862	Improvements in the generation of combustible gases for lighting and heating purposes, and in the mode of applying such gases to the manufacture of iron, glass and other processes in the arts where great heat is required.
LEVINSTEIN, HUGO - -	993	8th April 1862	Improvements in lustering silk and in machinery or apparatus employed therein.
LEWAL, GABRIEL - - -	3254	4th Dec. 1862	A hot air apparatus in cast-iron or any other metal or substance, consisting of prismatic tubes, to be applied to chimneys with flues and heat conduits. (Communicated by Jean Baptist Fondet.)
LEWIS, GEORGE - - -	3175	26th Nov. 1862	An improved mode of preparing oxide of zinc as a pigment. (Patented by Alfred Vincent Newton.)
LEWIS, HENRY JAMES - -	2522	13th Sept. 1862	Engines to be worked by means of water.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEYHERR, CHARLES - -	137	18th Jan. 1862	An improved throstle spinning frame. (Patented by Samuel Dreyfous.)
LEYSHON, GEORGE - -	33	4th Jan. 1862	An improvement or improvements in breaks for retarding and stopping carriages on railways.
LIBERT, JULES - - -	729	17th March 1862	Improvements in the manufacture of crinolines. (Patented by William Edward Gedge.)
LIEBMANN, CHARLES HENRY JULIUS WILLIAM MAXIMI- [LIAN.	476	22nd Feb. 1862	Improvements in felted fabrics suitable for carpets and other similar purposes, and in the apparatus employed therein.
LIEBMANN, CHARLES HENRY JULIUS WILLIAM MAXIMI- [LIAN.	2308	16th Aug. 1862	Machinery for finishing textile fabrics.
LIÉZARD, EDMOND EDOUARD, [junior.	2629	26th Sept. 1862	Construction of leaden window sashes, casements or glazed coverings or partitions. (Patented by William Edward Gedge.)
LIÉZARD, JOSEPH NICOLAS [MONTAIN.	2114	25th July 1862	An improved apparatus for decanting wine. (Patented by William Clark.)
LIÉZARD, JOSEPH NICOLAS [MONTAIN.	2629	26th Sept. 1862	Construction of leaden window sashes, casements or glazed coverings or partitions. (Patented by William Edward Gedge.)
LILLIE, JOSEPH - - -	205	27th Jan. 1862	Improvements in the method of protecting ships' bottoms from fouling and in materials to be used therefor.
LILLIE, SIR JOHN SCOTT, [Knight.	2231	9th Aug. 1862	Carriageways and footways.
LILLYWHITE, JOHN - -	1026	10th April 1862	An improved bowling apparatus for cricket balls.
LINDEMANN, GUSTAV - -	380	11th Feb. 1862	Improvements in applying gas for the purpose of singeing or dressing yarns or threads and woven fabrics, and for obtaining heat for other purposes.
LINDEMANN, GUSTAV - -	2893	27th Oct. 1862	Improvements in the manufacture of bricks, tiles, slabs and other articles of earthenware or other plastic material, and in the machinery or apparatus connected therewith.
LINDLEY, LEONARD - -	957	4th April 1862	Sewing and embroidering machines.
LINDSAY, GEORGE - - -	2377	27th Aug. 1862	An improved mode of arranging and disposing guns in ships employed in naval warfare and otherwise.
LINGHAM, GEORGE CALLEY -	1649	31st May 1862	An improved crinoline connector and suspender.
LINTON, JOHN LIVINGSTON -	3182	27th Nov. 1862	Improvements in the means of generating steam and in the apparatus to be employed therein. (Communicated by Thomas Shaw.)
LION, JULES RENÉ - - -	1252	29th April 1862	An improved method of preserving animal and vegetable substances. (Patented by William Clark.)
LIPSCOMBE, FREDERICK - -	2887	27th Oct. 1862	Purifying water.
LISSAGARAY, HENRI - -	1724	10th June 1862	Photography. (Patented by William Smith.)
LIST, JAMES - - - -	213	28th Jan. 1862	An improved means and instrument for obtaining distances and heights and distances between distant objects, without computation.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LIST, JAMES - - -	2177	1st Aug. 1862	An improved means of and instruments for obtaining distances and heights and distances between distant objects, without computation.
LISTER, ISHMAEL WILLIAM -	2914	29th Oct. 1862	Looms for weaving.
LISTER, SAMUEL CUNLIFFE -	222	28th Jan. 1862	Preparing cotton for spinning.
LISTER, SAMUEL CUNLIFFE -	3392	18th Dec. 1862	Preparing, combing and spinning flax, silk and other fibrous material.
LISTER, THOMAS - - -	1725	10th June 1862	Improvements in the material to be employed for address-cards, visiting-cards, labels, railway tickets and other similar articles whether for printing or writing upon.
LITTLE, GEORGE - - -	917	1st April 1862	Improvements in rolling or straightening metal spindles, shafts or rods of a cylindrical or tapered form.
LITTLE, JOHN - - -	168	22nd Jan. 1862	Apparatus for cooling coffee berries.
LITTLE, THOMAS - - -	168	22nd Jan. 1862	Apparatus for cooling coffee berries.
LITTLEBOY, CHARLES - - -	3090	17th Nov. 1862	Implements for cultivating land.
LITTLEHALES, DAVID - - -	253	31st Jan. 1862	An improved plastic compound as a substitute for papier maché.
LIVESEY, GEORGE THOMAS -	1564	26th May 1862	Improvements in purifying illuminating gas and in treating the products obtained in the various processes of purification.
LLEWELLIN, JOHN - - -	2338	21st Aug. 1862	Construction of a self-acting lubricator for lubricating various parts of steam-engines.
LLEWELLIN, PETER - - -	2338	21st Aug. 1862	Construction of a self-acting lubricator for lubricating various parts of steam-engines.
LLOYD, EDWARD - - -	1665	2nd June 1862	Machinery for the manufacture of paper.
LLOYD, JOHN - - -	323	7th Feb. 1862	Improvements in buffers for engines and carriages on railways.
LLOYD, THOMAS - - -	3202	29th Nov. 1862	Improvements in and applicable to the wheels of vehicles.
LOCK, JAMES - - -	850	27th March 1862	Improvements in apparatus for raising or elevating straw and crops on to stacks.
LOCK, WALTER FERGUSON -	1098	16th April 1862	An elongated projectile to be shot from smooth bored ordnance and which shall retain during its flight the longer axis in the direction of its line of flight, similarly to elongated projectiles propelled from rifled ordnance.
LOCKE, GEORGE LEWIS - -	3020	8th Nov. 1862	Improvements in the motive mechanism of pianofortes.
LOCKWOOD, JOHN - - -	2925	30th Oct. 1862	Boilers.
LOCKWOOD, JOHN - - -	3078	15th Nov. 1862	Means or apparatus for spinning wool, mohair, alpaca and other fibres.
LOEDER, WILLIAM - - -	2755	13th Oct. 1862	An improved projectile to be used with ordnance or fire-arms of any calibre. (Communicated by Gabriel Dümmler.)
LOFFT, ROBERT EMLYN - -	1635	30th May 1862	Small fire-arms and cartridges.
LOFT, JOHN THOMAS - - -	829	25th March 1862	Improved machinery for covering strips of metal and wire.
LOFT, JOHN THOMAS - - -	933	2nd April 1862	Improved machinery for printing in colours.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LOHMANN, FREDERICK - -	1417	12th May 1862	Improvements in melting and boring cast steel barrels applicable to fire-arms and pieces of ordnance. (Patented by Gustave Fuhrmann.)
LOGAN, THOMAS - - -	2980	4th Nov. 1862	An improved kaleidoscope.
LONG, JAMES - - -	2588	22nd Sept. 1862	An improved machine for cleansing and scraping streets, roads or ways.
LONG, THOMAS - - -	2125	26th July 1862	Improvements in the manufacture of open metal work applicable to various useful purposes.
Longbottom, Abram - -	1757	13th June 1862	Manufacture of artificial stone.
LONGHURST, JOHN - -	185	24th Jan. 1862	Chains and chain cables.
LONGLAND, JOSEPH - -	3391	18th Dec. 1862	Street lamps.
LONGLEY, WILLIAM - -	3166	25th Nov. 1862	Machinery for making bricks.
LONGRIDGE, WILLIAM SMITH	3397	19th Dec. 1862	Machinery for rolling tyres, hoops and rings.
LOPEZ, PIERRE MARTINEZ -	1435	13th May 1862	Improvements in apparatus for sowing wheat or other grain or seeds.
LORD, EDWARD - - -	112	15th Jan. 1862	Improvements in check straps applicable to looms for weaving.
LORD, EDWARD - - -	797	22nd March 1862	Improvements in certain machines for preparing cotton and other fibrous substances.
LORD, EDWARD - - -	2680	1st Oct. 1862	Power looms for weaving.
LORD, EDWARD - - -	2810	18th Oct. 1862	Certain improvements in machinery for opening and cleaning cotton and other fibrous substances.
LORD, EDWARD - - -	3016	8th Nov. 1862	Certain improvements in power looms for weaving.
LORD, JAMES - - -	3445	24th Dec. 1862	Machinery for fluting rollers used for preparing, spinning and doubling fibrous materials.
LORD, JOHN - - -	3078	22nd July 1862	Carding-engines.
LORD, JOSIAH - - -	1896	27th June 1862	Certain improvements in power looms for weaving.
LORD, SIMEON - - -	2078	22nd July 1862	Carding-engines.
LORD, WILLIAM - - -	3445	24th Dec. 1862	Machinery for fluting rollers used for preparing, spinning and doubling fibrous materials.
LORD, WILLIAM BARY - -	730	17th March 1862	Improved means or apparatus for raising, lowering and releasing ships' boats or other heavy bodies.
LORD, WILLIAM BARRY - -	894	31st March 1862	An improved hame slip for suddenly releasing horses and other cattle from their harness, also applicable for releasing heavy bodies or weights.
LORD, WILLIAM BARRY - -	895	31st March 1862	Loading fire-arms.
LORD, WILLIAM BARRY - -	2640	29th Sept. 1862	Improvements in loading fire-arms and in blasting.
LORENZ, HERRMANN - -	921	1st April 1862	Filters.
LORET, FRANCIS - - -	3469	31st Dec. 1862	Improvements in constructing double web forks applicable to every description of power looms.
LOSEBY, EDWARD THOMAS -	1792	17th June 1862	Improvements in small arms and ordnance and in sights for the same, part of which may be used for measuring distances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LOSEBY, EDWARD THOMAS -	3454	26th Dec. 1862	Improvements in the construction of instruments for ascertaining the pressure and the moving force of the atmosphere.
LOVEGROVE, JAMES - -	1714	9th June 1862	Apparatus for inspecting small sewers and drains and for facilitating the removal of obstructions therein.
LOW, ROBERT - - - -	2126	26th July 1862	Apparatus or means for producing an adjustable pressure on certain parts of machinery.
LOWE, DANIEL - - -	2695	6th Oct. 1862	Manufacture of door bolts and latches.
LOWE, JAMES - - -	2735	10th Oct. 1862	An improved construction of propeller.
LOWRY, GEORGE - - -	2016	14th July 1862	Machinery for carding and cleaning cotton and other fibrous materials.
LOWRY, GEORGE - - -	2564	19th Sept. 1862	Certain improvements in machinery for preparing, cleaning, cutting and shortening the lengths of tow and other fibrous materials.
LOWRY, GEORGE - - -	3282	8th Dec. 1862	Improvements in machinery for hackling flax and preparing to be spun flax, hemp, tow and such like materials.
LOY, WILLIAM THOMAS - -	1286	30th April 1862	Improved machinery or apparatus for carding cotton and other fibrous substances of a similar character. (Communicated by <i>Alphonse Rycx, jr.</i>)
LOYSEL, EDWARD - - -	1145	19th April 1862	Locks and fastenings.
LUBLINSKI, ROBERT - -	870	28th March 1862	An improved method of jointing crutch hooks on umbrellas or walking canes.
LUCAS, FELIX - - -	2597	23rd Sept. 1862	Lighting-apparatus. (Patented by <i>Richard Archibald Broome</i> .)
LUCETTI, ANTONIO - - -	867	28th March 1862	Apparatus for expressing the juice from pulpy fruit.
LÜDEKE, JOHANN ERNST FRIEDRICH.	2986	4th Nov. 1862	Improvements in magneto-electric apparatus for obtaining and applying motive-power.
LUER, AMATUS - - -	3172	26th Nov. 1862	Apparatus for pulverizing or dividing liquids into spray. (Patented by <i>Joseph Francis Foveaux</i> .)
LUKE, GEORGE - - -	2671	25th Oct. 1862	An improved stirrup.
LUKE, WILLIAM - - -	2671	25th Oct. 1862	An improved stirrup.
LUMLEY, HENRY - - -	1150	19th April 1862	An improved rudder.
LUNGLEY, CHARLES - -	1381	8th May 1862	Apparatus for manœuvring ships and vessels.
LUNGLEY, CHARLES - -	1918	1st July 1862	Improvements in constructing, building and working floating-docks and other floating bodies, and in pumping apparatus to be employed therein.
LUTTRINGHAUS, GUSTAV -	2578	19th Sept. 1862	Construction of locks, catches or fastenings for purses, bags or other receptacles. (Patented by <i>Edward Feis</i> .)
LUTTRINGHAUS, GUSTAV -	3406	20th Dec. 1862	Construction of locks, catches or fastenings for purses, bags or other receptacles. (Patented by <i>James Michaelis and Joseph Rubino</i> .)
LYALL, WILLIAM - - -	355	11th Feb. 1862	Improvements in machinery for preparing flax, hemp and other fibrous substances.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LYMAN, AZEL STORES - -	842	27th March 1862	An improved process of and apparatus for separating the fibres of wood, flax, hemp and other vegetable substances, and extracting the colouring matters therefrom. <i>(Patented by Alfred Vincent Newton.)</i>
LYMBERY, WILLIAM ROE -	790	21st March 1862	An improved woven fabric and improvements in machinery for manufacturing the same.
LYSTER, GEORGE FOSBERY -	3035	10th Nov. 1862	Apparatus for elevating or otherwise transmitting grain and other granular substances.

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M ^c ADAM, WILLIAM - -	467	21st Feb. 1862	Improvements in sheaves or pulleys, journals, bushes and other similar bearing or rubbing surfaces.
M ^c ADAM, WILLIAM - -	717	15th March 1862	Improvements in the manufacture of blocks, pulleys and weights for window sashes and other purposes, and in the mode of applying the same.
M ^c CANN, JOHN - - -	1373	7th May 1862	Improvements in the mode of and apparatus for drying, cooling and cleaning grain.
M ^c CARTHY, CHARLES - -	2754	13th Oct. 1862	Automatic safety valves.
M ^c CLINTOCK, RICHARD - -	3278	6th Dec. 1862	Carriage axles.
M ^c COMB, JAMES JENNINGS -	361	11th Feb. 1862	An improved fastening for securing cotton and other bales or packages.
M ^c CONNELL, JAMES EDWARD	391	13th Feb. 1862	Improvements in parts of boilers and furnaces for locomotive and other engines.
M ^c CONNELL, JAMES EDWARD	393	13th Feb. 1862	Improvements in railway breaks and in warming railway carriages.
M ^c FARLANE, THOMAS DUNCAN	399	14th Feb. 1862	Sewing-machines.
M ^c GEARY, JAMES - - -	1958	7th July 1862	Improvements in the manufacture of gas and the apparatus to be employed for that purpose. <i>(Partly communicated by Mr. Edward Leman Norfolk.)</i>
M ^c GREGOR, PETER - - -	1554	23rd May 1862	Certain improvements in machinery for spinning and doubling cotton and other fibrous substances.
M ^c ILROY, THOMAS - - -	1388	9th May 1862	An improved invalid bedstead.
M ^c ILWHAM, JAMES - - -	709	14th March 1862	Improvements in railway sleepers and chairs, and in the mode of fixing rails.
M ^c INNES, JOHN - - -	3353	16th Dec. 1862	Improvements in the distillation and treatment of petroleum and other like oils to obtain products therefrom, and in the apparatus to be used therefor, parts of which can be applied for distilling other liquids.
M ^c KAY, GORDON - - -	1113	16th April 1862	Sewing-machines. <i>(Patented by John William Ford.)</i>

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
M ^K KEAN, JOHN - - -	233	29th Jan. 1862	Sizing or dressing yarns or textile materials.
M ^K KEAN, JOHN - - -	2978	4th Nov. 1862	Sizing or dressing yarns or textile materials.
M ^K KENZIE, ALEXANDER -	327	7th Feb. 1862	Sewing-machines.
M ^K KENZIE, GEORGE - -	548	23th Feb. 1862	Improvements in machinery or apparatus for the manufacture of bobbins or holders for textile materials.
McKENZIE, HUGH - - -	1843	23rd June 1862	Improvements in cylindrical or circular brushes or rollers for various manufacturing machines.
McKENZIE, HUGH ROSS -	2992	5th Nov. 1862	Arrangement and construction of pillars or standards for supporting telegraph wires. (Patented by William Johnson.)
McLACHLAN, LACHLAN -	1222	25th April 1862	Improvements in governing or regulating light used for taking photographic portraits and other photographic pictures, part of which improvements is also applicable to lighting picture galleries.
McLARDY, HUGH - - -	3163	25th Nov. 1862	Steam-engines. (Patented by George Henderson.)
McLEAN, JOHN - - -	3412	22nd Dec. 1862	Improved apparatus or arrangements for obtaining oil and other products from shale and the like bituminous minerals.
MACLEOD, ALEXANDER [CHARLES.]	644	10th March 1862	Improvements in ventilating hats and coverings for the head.
McNAUGHT, WILLIAM -	3274	6th Dec. 1862	Machinery for washing and drying textile fabrics and materials.
MACAULAY, HENRY - -	329	7th Feb. 1862	Fire guards.
MACDONALD, GEORGE -	1511	19th May 1862	Improved apparatus for ginning cotton and for cleaning and preparing fibrous substances, also applicable for cleaning or polishing metal or other substances.
MACE, THOMAS KEMP - -	1390	9th May 1862	Improvements in guards or protectors for hats and other coverings for the head.
MACINTOSH, JOHN - - -	2228	9th Aug. 1862	Obtaining and applying motive-power.
MACKAY, JAMES - - -	1101	16th April 1862	Certain improvements in projectiles for fire-arms.
MACKAY, JAMES - - -	2346	22nd Aug. 1862	Manufacture of soap powder.
MACKENZIE, JAMES - -	2146	29th July 1862	Shaping machines for curvilinear surfaces.
MACKENZIE, PHILIP WALLACE	2402	29th Aug. 1862	Improvements in vehicles to be propelled by the rider.
MACKIRDY, LAUCHLAN -	84	11th Jan. 1862	Apparatuses for reburning animal charcoal.
MACNAB, WILLIAM - -	354	11th Feb. 1862	Steam-engines.
MACNAB, WILLIAM - -	2251	12th Aug. 1862	Improvements in steam-boilers and in apparatus for feeding the same and for effecting circulation therein.
MADDICK, WILLIAM, junior -	2605	24th Sept. 1862	An improved process or method of treating and preparing madder for dyeing purposes.
MADGE, HENRY JOSEPH -	919	1st April 1862	Improvements in coating iron sheets or plates to be used as a substitute for tin orterne plates.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MAHER, JAMES - - -	2304	15th Aug. 1862	Construction of power-looms.
MAHON, ARTHUR IRWIN -	1266	30th April 1862	Projectiles.
MAHON, ARTHUR IRWIN -	2759	13th Oct. 1862	Improvements in propellers and paddle floats, also applicable to the raising and forcing of water or other fluids.
MAIDEN, JAMES - - -	1271	30th April 1862	Safety lamps.
MAIGRON, ANTOINE FRÉDÉRIC	1636	21st June 1862	Improvements in machinery or apparatus for the manufacture of tow or oakum and for winding off, carding and spinning all kinds of fibrous fabrics.
MAKINSON, ALEXANDER [WOODLANDS.	546	28th Feb. 1862	Locomotive engines.
MAKINSON, ALEXANDER [WOODLANDS.	1789	17th June 1862	Locomotive and stationary engines.
MAKLAKOFF, NICOLAS DE -	1074	14th April 1862	Improvements in carriages for transporting loads on railways, common roads and other surfaces. (Patented by Richard Archibald Brooman.)
MALAM, WILLIAM - - -	927	2nd April 1862	An improvement in the manufacture of gas and improved apparatus to be employed in such manufacture.
MALINS, WILLIAM - - -	1819	20th June 1862	An improved protective covering for agricultural or other similar purposes.
MALLORY, JAMES EDWARD -	1666	2nd June 1862	Improved machinery for breaking and cleaning flax and other like fibre yielding plants. (Patented by Alfred Vincent Newton.)
MALLORY, JAMES EDWARD -	2726	9th Oct. 1862	Improved machinery for breaking and cleaning flax, hemp and other like fibrous substances. (Patented by Alfred Vincent Newton.)
MALOIS, ALEXANDRE CÉSAR [BARNABÉ.	251	30th Jan. 1862	Improvements in the manufacture of boot and shoe heels and in machinery to be used therein.
MALTRY, WILLIAM - - -	3490	31st Dec. 1862	Improved means of extinguishing fires by the use of substances not hitherto so applied.
MAMELIN, JOSEPH - - -	2099	23rd July 1862	Manufacture of bricks. (Patented by Robert Bell.)
MANCHON, JULES STANISLAS	1872	25th June 1862	Apparatus for raising the nap on cloth and other fabrics. (Patented by William Clark.)
MANDER, JOSEPH - - -	1986	10th July 1862	Crochet needles and crochet needle holders.
MANGIN, VICTOR - - -	1829	21st June 1862	The reproduction of the various colours and tints of chromolithographic impressions on glass, earthenware, china and other bodies. (Patented by George Wagstaff Yapp.)
MANN, ALEXANDER - - -	948	3rd April 1862	Photographic apparatus.
MANNING, FREDERICK ALFRED	3387	18th Dec. 1862	Production of colouring matters.
MANSSELL, RICHARD CHRIS- [TOPHER.	1210	25th April 1862	Improvements in the construction of wheels to be used on railways.
MANWARING, GEORGE - - -	290	4th Feb. 1862	Improvements in flushing apparatus for closets, sewers, and other water services.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MANZINI, VINCENZO - -	2117	25th July 1862	Certain improvements in the construction of locomotive engines used on railways, for facilitating and controlling the ascent and descent of locomotive engines and trains on inclined planes of lines of railway, and for simplifying the construction of locomotives used on railways.
MAPPIN, WALTER SANDELL -	140	20th Jan. 1862	A new or improved lock.
MAPPLE, DANIEL - - -	2153	29th July 1862	Telegraphic apparatus.
MAPPLE, DANIEL - - -	2591	23rd Sept. 1862	Telegraphic apparatus.
MAPPLE, JAMES - - -	2153	29th July 1862	Telegraphic apparatus.
MAPPLE, JAMES - - -	2591	23rd Sept. 1862	Telegraphic apparatus.
MARCAIS, JOSEPH JEAN -	1961	8th July 1862	Wet gas meters. (Patented by John Henry Johnson.)
MARCHAL, DESIRÉ - - -	1872	7th May 1862	An improved method of preventing the destructive effects of vibration or jar on the permanent way of railways and on the wheels, axletrees and other parts of carriages, and the working and other parts of machinery liable to shocks.
MARCY, EGERTON - - -	743	17th March 1862	Breech-loading fire-arms. (Patented by Thomas Waller.)
MARÉCHAL, CHARLES RAPHAEL	767	19th March 1862	Improvements in printing and painting upon glass and ceramic wares and upon metallic and mineral substances, also in the preparation of inks and colours for printing and painting. (Patented by Richard Archibald Brooman.)
MARÉCHAL, CHARLES RAPHAEL	2771	14th Oct. 1862	Improvements in dressing millstones and in materials employed therein. (Patented by Richard Archibald Brooman.)
MARGETSON, JOHN STEWART	2455	5th Sept. 1862	Improvements in the manufacture of the material intended for scarfs or cravats and in the machinery employed therein.
MARGUERITTE, LOUIS JOSEPH [FRÉDÉRIC]	349	10th Feb. 1862	Improvements in refining cast iron, wrought and other malleable iron, and in the cementation of iron. (Patented by William Clark.)
MARGUERITTE, LOUIS JOSEPH [FRÉDÉRIC.]	936	2nd April 1862	Improvements in the manufacture of carbonic acid. (Patented by William Clark.)
MARGUERITTE, LOUIS JOSEPH [FRÉDÉRIC.]	3185	27th Nov. 1862	Gas burners. (Patented by William Clark.)
MARINONI, HIPPOLYTE AU- [GUSTE.]	2736	10th Oct. 1862	Apparatus for fixing type in the chases.
MARKLAND, THOMAS - -	1361	7th May 1862	Certain improvements in wearing-apparel.
MARKS, ABRAHAM - - -	1157	21st April 1862	Improvements in artificial feathers applicable to certain ornaments of dress.
MARMET, HENRY JOSEPH [FERDINAND.]	3104	19th Nov. 1862	Construction of lamps.
MARNAS, JEAN AIMÉ - -	2130	28th July 1862	Preparation of a red colouring matter. (Patented by William Spence.)
MARNAS, JEAN AIMÉ - -	2132	28th July 1862	Preparation of a blue colouring matter. (Patented by William Spence.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MARQUES, DON PELEGRIN -	2287	14th Aug. 1862	Apparatus for cleaning the bottoms of ships and vessels. (Communicated by Antonio Blanco y Ramis.)
MARQUIER, FRANÇOIS LOUIS -	2620	20th Oct. 1862	Transferring designs and prints produced by photography to stone or zinc. (Patented by Richard Archibald Brooman.)
MARREL, FRANÇOIS - -	1333	5th May 1862	Improvements in forming wrought iron bars for the manufacture of armour plates and other articles of forged iron.
MARRIOTT, EDWARD - -	3041	11th Nov. 1862	Improvements in the purification of gas and in obtaining certain useful products therefrom.
MARSDEN, WILLIAM JOHN -	1106	16th April 1862	Eye shades.
MARSH, JOHN - - -	1741	11th June 1862	Improvements in the manufacture of lace and in the machinery employed therein.
MARSH, JOHN EDWIN - -	2184	1st Aug. 1862	An improvement or improvements in metal rivets used in joining or securing together parts of boots, shoes and other articles of leather, and also in machinery for making such rivets.
MARSH, SAMUEL WILMER -	107	14th Jan. 1862	Breech-loading fire-arms.
MARSH, THOMAS - - -	794	22nd March 1862	An improvement or improvements in hames for horses and other draught animals.
MARSHALL, JAMES GARTH -	99	13th Jan. 1862	Improvements in the preparation of flax, hemp and other fibres previous to being spun.
MARSHALL, JAMES GARTH -	111	14th Jan. 1862	Improvements in the machinery and processes for producing fibre from woven and other textile fabrics.
MARSHALL, JAMES GARTH -	2951	31st Oct. 1862	Improvements in the treatment of the straw of flax, hemp and other similar vegetable substances preparatory to spinning the fibre thereof.
MARSLAND, JOHN - - -	1914	1st July 1862	Apparatus for regulating the flow and pressure of steam and other fluids.
MARSON, CHARLES JOHN -	2658	1st Oct. 1862	A new and improved mode of using the exhaust steam of steam-engines by re-conveying the same into the boiler.
MARSON, JOHN - - -	1667	2nd June 1862	A new or improved projectile for small arms and ordnance of every description.
MARTIN, ALEXANDER HENNAH	1889	27th June 1862	Means or apparatus employed in weaving.
MARTIN, ALFRED JOSEPH -	158	21st Jan. 1862	Improvements in the treatment of fusel oil, and for various applications of the same to useful purposes.
MARTIN, ALFRED JOSEPH -	2249	11th Aug. 1862	Apparatus for distillation.
MARTIN, CELESTIN - - -	1229	26th April 1862	An improvement in or addition to carding-engines. (Patented by Emile Alcan.)
MARTIN, CELESTIN - - -	2096	23rd July 1862	Machines for combing and carding wool and other filamentous materials. (Patented by Emile Alcan.)
MARTIN, JEAN MARIE CHARLES	676	12th March 1862	An improved kind of spinning or humming top. (Patented by Frederick Tolhausen.)
MARTIN, JULES - - -	1878	26th June 1862	Reaping and mowing machines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MARTIN, LOUIS - - -	163	22nd Jan. 1862	Improvements in the treatment of mineral oils and in the apparatus connected therewith.
MARTIN, LOUIS - - -	568	1st March 1862	An improved candle lamp.
MARTIN, WARRICK - - -	712	15th March 1862	An improved brake for railroad carriages. (Patented by William Clark.)
MARTIN, WARRICK - - -	1587	27th May 1862	Brakes for railroad carriages. (Patented by William Clark.)
MARTINDALE, RALPH - - -	207	27th Jan. 1862	Improvements in globes and glasses to be used with hydro-carbon lamps.
MARTINDALE, RALPH - - -	1602	28th May 1862	Improvements in the manufacture of globes and glasses more particularly applicable to hydrocarbon and spirit lamps, and also in fastenings for securing the globes or glasses in those and other descriptions of lamps.
MARTY, JEAN FRÉDÉRIC AUGUSTE.	1049	11th April 1862	Improvements in the manufacture of leathern accoutrements. (Patented by William Clark.)
MARX, FREDERIC WILHELM -	94	13th Jan. 1862	Improvements in the manufacture of cups, bowls, saucers and other dished articles and cases. (Patented by Richard Archibald Brooman.)
MARZETTI, CHARLES THOMAS	435	19th Feb. 1862	Machinery or apparatus for raising, lowering and otherwise moving or disposing casks and other bodies.
MASON, ISAAC - - -	1529	21st May 1862	Presses for cotton and other substances. (Patented by Henry Bernoulli Barlow.)
MASON, SAMUEL - - -	1734	11th June 1862	Construction of steam-boilers.
MASSI, CHARLES - - -	639	10th March 1862	Improvements in means and apparatus for retarding and stopping carriages used on railways or common roads.
MASTERS, MOSES - - -	1140	19th April 1862	Artificial legs.
MAT, FRANÇOIS ALEXANDRE [LE.	1061	15th April 1862	Improvements in the construction of revolving and repeating fire-arms, part of which invention is also applicable to other arms.
MATANLE, THOMAS - - -	120	16th Jan. 1862	An improved runner fastening for umbrellas, parasols, sunshades and other similar articles.
MATHER, COLIN - - -	1015	9th April 1862	Spittoons.
MATHERS, ROBERT - - -	1980	9th July 1862	Steam-boilers.
MATHEW, BROWNLOW - - -	2100	24th July 1862	New and improved methods of protecting the surfaces of iron or other metal work from oxidation, incrustations or accumulations of any kind, more especially in the cases of ships' bottoms, steam-boilers and machinery.
MATHEW, BROWNLOW HUGH -	789	21st March 1862	Improvements in fire-arms and in cartridges.
MATHIAS, JULES FRANÇOIS -	1044	11th April 1862	An apparatus for pressing and ironing straw hats of any shape or form.
MATHIES, ROBERT HENRY -	1113	16th April 1862	Sewing-machines. (Patented by John William Ford.)
MATHIEU, PHILIPPE ANTOINE	3452	26th Dec. 1862	Fire-arms. (Patented by William Clark.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MATHIEU-PLESSY, EUGENE [MARIE.]	3009	7th Nov. 1862	Manufacture of paper. (Patented by Marc Antoine François Mençons.)
MATTHEWS, SAMUEL PARKES	1155	21st April 1862	Vices.
MAUGHAM, WILLIAM - -	2134	28th July 1862	Manufacture of effervescent beverages.
MAURER, JEAN JACQUES - -	1563	23rd May 1862	A new manufacture of socks and stockings. (Patented by William Clark.)
MAURICE, JOSEPH - - -	2479	9th Sept. 1862	Construction and preservation of ships and vessels.
MAURICE, JOSEPH - - -	2722	9th Oct. 1862	Improvements in steering ships or vessels and in the apparatus to be employed for that purpose.
MAURY, FRANÇOIS - - -	1873	26th June 1862	Regulating or moderating the movement of the keys of pianofortes. (Patented by Edward Thomas Hughes.)
MAW, EDWIN - - - -	1561	23rd May 1862	Improvements in constructing ships, vessels, forts and batteries.
MAW, GEORGE - - - -	2577	19th Sept. 1862	Manufacture of tessera and other mosaic inlays.
MAWSON, SAMUEL - - -	694	13th March 1862	Improvements in railway apparatuses for communicating between guard and driver and for coupling and uncoupling the carriages, parts of which apparatuses are applicable to connecting pipes and tubes.
MAXTON, JOHN - - - -	2947	31st Oct. 1862	Machinery or apparatus employed in the manufacture of lace or trimmings made on bobbin net or twist lace machines.
MAY, CARL MARTIN - - -	2486	10th Sept. 1862	Machinery for raising the nap on woven fabrics. (Patented by Mark Smith.)
MAY, CHARLES NEALE - -	100	13th Jan. 1862	Improvements in the manufacture of pastry and in apparatus for the same.
MAY, WILLIAM GLADSTONE -	2022	14th July 1862	Apparatus for extending tables.
MAYALL, FRANCIS FREDERICK [BURDETT.]	1392	9th May 1862	Dyeing mixed or plain fabrics and yarns.
MAYALL, GEORGE, junior -	2928	30th Oct. 1862	Certain improvements in machinery or apparatus for preparing cotton and other fibrous materials for spinning.
MAYES, WILLIAM MILLBANKE	2378	27th Aug. 1862	An improvement in or addition to wheels particularly applicable to the wheels of railway and other carriages.
MAYS, JONATHAN ALDOUS -	170	23rd Jan. 1862	Envelopes and other wrappers.
MAYS, WILLIAM - - - -	1018	9th April 1862	Improvements in machinery for grinding corn, grain and other substances.
MAZIER, MARIE PIERRE AMA- [RANTHE FERDINAND.]	496	24th Feb. 1862	Reaping and mowing machines. (Patented by Richard Archibald Brooman.)
MEDHURST, JOHN - - - -	580	26th Feb. 1862	Improvements in apparatus for reefing and furling the top sails, courses and other square sails of vessels.
MEEARS, JOSEPH WILLIAM -	2919	29th Oct. 1862	Improvements in casks, tanks or other receptacles for containing petroleum and other oils or spirits.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MEEKINS, THOMAS MOSSOM, [LL.D.]	289	4th Feb. 1862	The production of a projectile and explosive force to be used in instruments of war, for an electric gas gun and electric gas shell, for a method of using the recoil of weapons for the purpose of increasing the pressure of elastic fluids for the production of a projectile force, for a method of rapidly loading weapons at the breech, and of a motive force to be used in an electric gas engine or other engines.
MEHRTENS, GEORGE - -	280	31st Jan. 1862	Improvements in ladies' stays and in the bodies of ladies' dresses.
MELLODEW, JAMES - -	1321	3rd May 1862	Looms for weaving.
MELLODEW, JAMES - -	3023	8th Nov. 1862	Looms for weaving.
MELLODEW, THOMAS - -	1321	3rd May 1862	Looms for weaving.
MELLODEW, THOMAS - -	1513	19th May 1862	An improved fabric in the nature of a cord or corduroy.
MELLODEW, THOMAS - -	3023	8th Nov. 1862	Looms for weaving.
MELTON, HENRY - - -	2319	18th Aug. 1862	Manufacture of hats and caps.
MENJUC, JEAN LOUIS - -	3129	21st Nov. 1862	An improved elastic fastening for gloves. (Patented by William Edward Gedge.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	218	28th Jan. 1862	Improvements in engines actuated by heated air or by combinations of air and steam. (Communicated by Jacques Belou, C.E.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	219	28th Jan. 1862	Improvements in the construction of looms for weaving. (Communicated by Claude Crozet.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	281	1st Feb. 1862	Improved processes for the recovery of the oleic acid contained in the residual scouring waters of woollen and other textile materials or fabrics. (Communicated by Edmond Lepainteur.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	338	10th Feb. 1862	Improvements in the treatment of coprolites and other fossil phosphates of lime. (Communicated by Guillaume Louis Edouard Buran and Louis Goupy.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	339	10th Feb. 1862	Improved apparatus for the administration of vapour baths. (Communicated by Eliacin Edouard Pomier, M.D.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	378	13th Feb. 1862	Improvements in the disinfection of animal excretions and in the extraction therefrom of fertilizing elements for agricultural purposes. (Communicated by Alfred Marie Celestin Edgard Goussard.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	494	22nd Feb. 1862	Burners for heating by gas. (Communicated by Carsten Richard Meyn.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	637	10th March 1862	Certain improvements in breech-loading fire-arms. (Communicated by Salloum Dahdah.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	745	18th March 1862	A new or improved means of arresting headstrong or runaway horses. (Communicated by Augustin Durand, M.D.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MENNONS, MARC ANTOINE [FRANÇOIS.]	746	18th March 1862	An improved combination of cooling and filtering apparatus forming a safe for the preservation of solid and liquid provisions. (Communicated by Joseph Weatherby Bartlett.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	747	18th March 1862	The application to the manufacture of paper pulps of a vegetable product not hitherto used for that purpose. (Communicated by Frédéric Thierry Pitoy-Millot.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	748	18th March 1862	An improved needle threading apparatus. (Communicated by Jules Fouquet.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	818	24th March 1862	Certain improvements in machinery for the production of ornamental stitching or embroidery. (Communicated by Paul Nicolas Legris.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	887	31st March 1862	Improvements in the manufacture from vegetable product of glucose or fermentable sugar. (Communicated by Martial Victor Jouanet.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1518	20th May 1862	Improvements in certain descriptions of breech-loading fire-arms. (Communicated by Alem Rousseau.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1519	20th May 1862	Improvements in the method of and apparatus for applying screw power to the locomotion of railway trains on steep inclines. (Communicated by Giuseppe Velina.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1520	20th May 1862	Improved processes for the conversion of amylaceous matters into saccharine and other useful products. (Communicated by Georges Serret, Paul Hamoir and Achille Duquesne.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1859	25th June 1862	Steam-boiler furnaces. (Communicated by Frédéric Emile de Erlanger and Alexandre Friedmann.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1894	28th June 1862	Improved apparatus for the prevention and reduction of synovial and other swellings or tumours in the limbs of horses. (Communicated by Louis Rupert Wachter.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2006	12th July 1862	Certain improvements in vessels mounted as floating batteries. (Communicated by Jean Antoine Alexis Cambon de la Valette.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2209	7th Aug. 1862	An improved self-inking hand-stamp. (Communicated by Louis Mathieu Hector Fromont.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2298	15th Aug. 1862	An improved apparatus for the production of sealing-wax impressions. (Communicated by Louis Jules Bazin.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2386	28th Aug. 1862	Smoke-consuming furnaces. (Communicated by Bernard Palazot.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2387	28th Aug. 1862	An improved assorting apparatus applicable to the "numbering" of raw silks. (Communicated by Henri Travi.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2612	25th Sept. 1862	Construction of chair settees. (Communicated by Victor Wéry.)

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MENNONS, MARC ANTOINE [FRANÇOIS.	2720	8th Oct. 1862	Self-inking hand-stamps. (Communicated by Joseph Henri Simonin.)
MENNONS, MARC ANTOINE [FRANÇOIS.	3009	7th Nov. 1862	Manufacture of paper. (Communicated by Eugene Marie Mathieu Plessy.)
MERCER, WILLIAM - -	1293	2nd May 1862	Improvements in certain parts of machinery for slubbing and roving cotton and other fibrous substances.
MERCIER, ACHILLE TRAN- [QUILLE.	1270	30th April 1862	Weaving-loom.
MERITON, THOMAS - -	234	29th Jan. 1862	Marine and other boilers for generating steam.
MERITON, THOMAS - -	2077	22nd July 1862	Steam-engine governors and speed regulators for machinery.
MEROLLA, SALVATORE - -	1319	3rd May 1862	Fire-arms.
MERRYWEATHER, MOSES -	2956	1st Nov. 1862	Improvements in steam fire-engines, parts of which improvements are applicable also to other purposes.
MERRYWEATHER, RICHARD [MOSES.	2956	1st Nov. 1862	Improvements in steam fire-engines, parts of which improvements are applicable also to other purposes.
MERTENS, CHARLES - -	2585	22nd Sept. 1862	Machinery or apparatus for scutching and dressing flax, hemp or other fibrous materials.
MERTENS, GEORGE DIERS -	1028	10th April 1862	Improvements in the preparation of materials to be employed in the making of beer, and in the machinery or apparatus employed therein. (Communicated by Charles Theodore Aulhorn.)
MESNARD, AUGUSTE - -	2359	23rd Aug. 1862	Stuffing-boxes and their packings. (Patented by Michael Henry.)
MESTRE, ALPHONSE - -	2084	22nd July 1862	An improved instrument for marking wadded or other stuffs. (Patented by William Edward Gedge.)
MESURIER, THOMAS HENRY [LE.	1463	15th May 1862	Raising sunken vessels and other heavy bodies.
METIVIER, JEAN MARIE HENRI [PAUL.	1075	14th April 1862	Pumps. (Patented by Richard Archibald Brooman.)
METTAM, CHARLES - -	1879	26th June 1862	Construction of electro-voltaic plate work for medical and other purposes. (Patented by John Henry Johnson.)
MEYER, ADOLPHE - - -	3496	31st Dec. 1862	Improvements in the arrangement of the parts of railway trains and in the application of power for their propulsion. (Patented by William Clark.)
MEYER, HERMANN CHRISTIAN	1537	21st May 1862	Improvements in the means of stopping or retarding railway and other carriages.
MEYER, JEAN JACQUES - -	3496	31st Dec. 1862	Improvements in the arrangement of the parts of railway trains and in the application of power for their propulsion. (Patented by William Clark.)
MEYER, JOHN - - -	2411	30th Aug. 1862	Improvements in mechanism for the production of Jacquard cards and in the said cards or card bands.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MEYN, CARSTEN RICHARD -	484	22nd Feb. 1862	Burners for heating by gas. (Patented by Marc Antoine François Mennons.)
MICAS, JEANNE JARA NA- [THALIE.	2596	23rd Sept. 1862	An improved railway break.
MICHAELIS, JAMES - - -	3406	20th Dec. 1862	Construction of locks, catches or fastenings for purses, bags or other receptacles. (Communicated by Gustav Luttringhaus.)
MICHAUD, CHARLES HENRI -	1440	13th May 1862	Improvements in the purification of colza, rape and other oils. (Patented by John Henry Johnson.)
MIDDLETON, DAVID - -	1823	20th June 1862	Improvements in cranes for lifting weights into and out of carts and for other purposes.
MIDDLETON, THOMAS - -	611	7th March 1862	Improvements in means of producing raised chasing on copper, silver and Britannia metal, by the application of pressure.
MIGNON, JEAN BAPTISTE JAVA	2475	8th Sept. 1862	Railway signals. (Patented by George Davies.)
MILCH, ALOIS - - -	3116	20th Nov. 1862	An improved brick-making machine. (Patented by Charles Stevens.)
MILES, GIDEON - - -	309	5th Feb. 1862	An improvement in fire-arms. (Patented by Alfred Vincent Newton.)
MILES, JAMES - - -	1943	3rd July 1862	Machinery for cutting out soles and other parts used in the manufacture of boots and shoes, and also parts used in the manufacture of other articles.
MILES, JOHN HENRY - -	1604	23th May 1862	Improvements in the manufacture of venetian blinds and other window blinds, and in apparatus for raising and lowering the same.
MILLBOURN, JOSEPH - -	1645	31st May 1862	Pulp strainers or knotter bottoms.
MILLBOURN, JOSEPH - -	2066	19th July 1862	Manufacture of paper.
MILLE, MARIN JOSEPH AL- [PHONE.	2421	1st Sept. 1862	Improvements in the means of obtaining light and heat and in apparatus for the same. (Patented by William Clark.)
MILLER, JAMES - - -	2000	11th July 1862	Apparatus for steering ships and other vessels.
MILLER, JOHN JACOB - -	2457	5th Sept. 1862	Lamps. (Patented by William Edward Newton.)
MILLER, WILLIAM - - -	525	26th Feb. 1862	The manufacture of sugar.
MILLINGTON, JOHN - -	474	22nd Feb. 1862	A new or improved hearse or bier.
MILLION, FRANCISQUE - -	691	13th March 1862	Stuffing-boxes. (Patented by Michael Henry.)
MILLS, ABEL - - - -	3332	12th Dec. 1862	Improvements in reefing and unreefing, furling and unfurling sails of ships and other vessels, and an improvement in the rotary yards, and the journals in which the sockets or ends of the rotary yards work.
MILLS, CLONLIFFE - -	2801	16th Oct. 1862	Envelopes.
MILLS, RICHARD - - -	1344	6th May 1862	Washing, wringing, drying and mangling machines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MILNER, JAMES - - -	2628	26th Sept. 1862	Improvements in apparatus applicable to machines for preparing wool, flax and other fibrous substances, parts of which are also applicable to machines for other uses.
MILNER, ROBERT DAWSON -	2628	26th Sept. 1862	Improvements in apparatus applicable to machines for preparing wool, flax and other fibrous substances, parts of which are also applicable to machines for other uses.
MILNES, JOHN - - -	1416	12th May 1862	Improvements in portable apparatus for exercising the human body.
MILWARD, JOHN FREDERICK	1402	10th May 1862	Breech-loading fire-arms. (Communicated by John Bisset.)
MINARY, EMMANUEL - -	1919	1st July 1862	Improvements in processes for the utilization of certain refuse products resulting from the manufacture of iron, such processes being applicable to the treatment of other metallic or mineral substances. (Patented by George Henry Birkbeck.)
MINASI, CARLO - - -	507	25th Feb. 1862	Improvements in cartridges and in apparatus for facilitating the proper aiming with fire-arms.
MINCHIN, CHARLES HENRY -	838	26th March 1862	A suspender or improved gallery for supporting the shades of gas or other lights.
MINOTTO, PROFESSOR JEAN -	1550	22nd May 1862	Electric batteries. (Patented by Henry Cook.)
MINTON, SAMUEL - - -	1622	29th May 1862	An improved construction of revolving battery.
MIQUEL, JEAN FELIX - -	1771	14th June 1862	An improved pessary.
MIRLAND, VICTOR - - -	3296	9th Dec. 1862	Manufacturing paste with the dried pulp of rhubarb to be used as preserve.
MIRON, ARTHUR SIMON JOSEPH	3153	24th Nov. 1862	Improvements in burnishing metal surfaces and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
MISHORES, MICHAEL - -	3142	22nd Nov. 1862	Construction of handles for umbrella, parasol or other like sticks, from soft canes.
MODY, BOMANJEE MUNCHERJEE	1821	20th June 1862	Varnish or polish.
MOECKEL, JOHN JACOB - -	2339	28th Aug. 1862	Machinery or apparatus for spinning cotton, wool or other fibrous materials.
MOFFATT, HENRY GEORGE -	1810	3rd May 1862	An improved advertizing medium.
MOIR, WILLIAM, - - -	1177	23rd April 1862	An improved instrument for ascertaining the specific gravity of liquids.
MOIROUX, JOSEPH - - -	2970	3rd Nov. 1862	An improved portable spring bottom bedstead. (Patented by Thomas Offen Clark.)
MOIROUX, JOSEPH EMILE -	1693	5th June 1862	A new compound for protecting and preserving the polish, polished and other surfaces of metals, woods, skins and paper, and for rendering all woven, textile and other fabrics water and weather proof.
MOISON, FRANÇOIS THÉOPHILE	2355	23rd Aug. 1862	Improvements in the process of cleaning organic matter.
MOLINEUX, THOMAS - - -	2509	11th Sept. 1862	Pianoforte actions.
MOLLARD, ANTOINE AUGUSTE	780	20th March 1862	Manufacture of soap. (Patented by William Clark.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Mon]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOLLET, PAUL EMILE -	319	6th Feb. 1862	Improvements in the preparation of pulp for paper. (Patented by John Henry Johnson.)
MOLYNEUX, ECHLIN, jr. -	672	12th March 1862	An improved method of utilizing the waste heat of the products of combustion as they escape from a furnace, and securing a more complete combustion of the fuel.
MOLYNEUX, ECHLIN, jr. -	819	25th March 1862	Improvements in air, gas and vapour engines.
MOLYNEUX, ECHLIN, junior -	2776	15th Oct. 1862	An improved carriage with a travelling railway attached.
MONCKTON, EDWARD HENRY [CRADOCK.	119	16th Jan. 1862	Improvements in apparatus for obtaining and applying motive-power.
MONCKTON, EDWARD HENRY [CRADOCK.	188	24th Jan. 1862	Improvements in submarine and other telegraphic communication and in apparatus connected therewith.
MONCKTON, EDWARD HENRY [CRADOCK.	264	31st Jan. 1862	Improvements in the application of electricity for obtaining ammonia and other useful products during the combustion of coal and fuel, and in the apparatus employed therein.
MONCKTON, EDWARD HENRY [CRADOCK.	851	27th March 1862	Improvements in the manufacture of effervescing liquids.
MONCKTON, EDWARD HENRY [CRADOCK.	998	8th April 1862	Timekeepers.
MONCKTON, EDWARD HENRY [CRADOCK.	1153	21st April 1862	Improvements in the preparation of metal to be used in the construction of cannon, rifles, armour-plates and other objects used in naval or military warfare or otherwise.
MONCKTON, EDWARD HENRY [CRADOCK.	1167	22nd April 1862	Improvements in umbrellas, parasols, awnings, tents and covering cloths, and in waterproofing the same.
MONCKTON, EDWARD HENRY [CRADOCK.	1515	19th May 1862	Improvements in the means and apparatus for the protection of life and property by the agency of electricity.
MONCKTON, EDWARD HENRY [CRADOCK.	1516	19th May 1862	Improvements in obtaining and applying light and heat by electricity.
MONCKTON, EDWARD HENRY [CRADOCK.	2538	16th Sept. 1862	A new or improved engine for obtaining and applying motive-power.
MONCKTON, EDWARD HENRY [CRADOCK.	2772	14th Oct. 1862	Improvements in coils of induction and in obtaining and applying power by means of electro-magnetism.
MOND, LUDWIG - - -	2277	13th Aug. 1862	Improvements in extracting the sulphur and sulphurous acid from the oxy-sulphuret of calcium which is contained in the residues or waste material obtained in the manufacture of soda. (Patented by William Schnell.)
MOND, LUDWIG - - -	2556	18th Sept. 1862	An improved method of obtaining hyponitric acid and nitric acid from nitrate of soda.
MONGUEL, LOUIS PIERRE -	731	17th March 1862	An improved cold vapour generator, which may also be used in the carburation of illuminating gas.
MONIN, BENOIT THÉODORE [ULYSSE.	3005	6th Nov. 1862	Breech-loading fire-arms.
MONNET, PROSPER - -	1939	3rd July 1862	An improved manufacture of blue colouring matter. (Patented by William Armand Gilbee.)

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ALPHABETICAL INDEX OF PATENTEEES

[Mor]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MONSON, CHARLES - -	2343	22nd Aug. 1862	A new and useful repeating rotary engine.
MONTAGU, AUGUSTE LOUIS [CESAR DE.]	2566	19th Sept. 1862	An improved cover for chimneys adapted to prevent them from smoking and to facilitate the extinguishing of fires therein. (Patented by Eugenio de la Bastida.)
MONTALBA, ANTHONY - -	2673	3rd Oct. 1862	An improved candlestick. (Patented by William Clark.)
MONTALBA, ANTHONY - -	3380	17th Dec. 1862	Holders for lamps, candles and other lights. (Patented by William Clark.)
MONTI, JULES FERDINAND -	690	13th March 1862	An improved apparatus for regulating the pressure of steam in steam-boilers and the combustion in their furnaces.
MOORE, DANIEL - - -	2349	22nd Aug. 1862	Breech-loading fire-arms.
MOORE, DANIEL - - -	2351	22nd Aug. 1862	Revolving fire-arms.
MOORE, EDWARD - - -	1264	30th April 1862	Improvements in the manufacture of dress shirts and dresses.
MOORE, GEORGE STOREY -	2561	18th Sept. 1862	Ship building.
MOORE, HENRY - - -	3360	16th Dec. 1862	Improvements in looms for weaving and in arranging the warps therein.
MOORE, JAMES - - -	2127	28th July 1862	Improvements in the mode of ventilating and heating rooms, Turkish baths, hot houses and buildings of all kinds.
MOORE, JOHN - - -	238	29th Jan. 1862	Improvements in machinery or apparatus for spinning and doubling wool and other fibrous materials.
MOORE, JOHN, jr. - - -	52	8th Jan. 1862	Improvements in the manufacture of gun barrels and wrought iron tubing.
MOORE, ROBERT - - -	1404	10th May 1862	Improved apparatus for indicating the presence, position or accumulation of liquids, gases or vapors, and apparatus for preventing danger or damage consequent thereon.
MOORE, ROBERT - - -	1405	10th May 1862	Improvements in the structure and appliances of ships and other vessels.
MOORE, SAMPSON - - -	766	19th March 1862	Certain improvements in machinery for compressing and cutting tobacco.
MOORE, THOMAS - - -	932	2nd April 1862	Improvements in winding-apparatus especially applicable to fishing lines, nets and log lines, and in leaders or travellers to be used therewith, which leaders or travellers are also applicable to working ships' sails and other useful purposes.
MOORES, FREDERICK - -	74	10th Jan. 1862	An improved method of obtaining motive-power by means of water wheels.
MORATEUR, ANDRÉ - -	1128	17th April 1862	Taps and valves. (Patented by Richard Archibald Brooman.)
MOREAU, ALEXIS - - -	1641	31st May 1862	Electro-magnetic machines or apparatus.
MOREAU, ALEXIS JEAN - -	2233	9th Aug. 1862	Improvements in the mode of and apparatus for treating bituminous and carbonaceous substances for the purpose of obtaining the various products volatile, liquid and solid which they contain, and also in the treatment and application of such products.
MOREAU, ALEXIS JEAN - -	2234	9th Aug. 1862	Manufacture of gas and coke.

[Mor]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Mor]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOREAU, ALEXIS JEAN - -	2518	12th Sept. 1862	An improved mode of or process for reducing or melting pulverised metals or metallic ores.
MOREL, AUGUSTIN - - -	1845	6th May 1862	Heckling-machines.
MORELAND, RICHARD, junior -	2543	16th Sept. 1862	Machinery for preparing and cutting hops.
MORETON, ROBERT - - -	939	3rd April 1862	Improvements in refrigerators or apparatus for cooling liquids, part of which improvements are also applicable to distillation, surface condensation, heating air for blast furnaces and other similar purposes.
MOREWOOD, EDMUND - - -	815	24th March 1862	Improvements in the process of coating metals and in the apparatus employed.
MOREWOOD, EDMUND - - -	925	25th March 1862	Improvements in the manufacture or shaping of iron or other material.
MORGAN, DAYTON - - -	1732	10th June 1862	Reaping and mowing machines. (Patented by John Browncker Ingle.)
MORGAN, EDWARD - - -	223	28th Jan. 1862	Carriages.
MORGAN, GEORGE HARGRAVE	2943	31st Oct. 1862	Improved mechanical arrangements for raising and lowering bodies.
MORGAN, GEORGE HENRY - -	223	28th Jan. 1862	Carriages.
MORGAN, HUGH - - -	3070	14th Nov. 1862	Improvements applicable to weighing-machines, parts of which may be used to measure liquids.
MORISON, BENJAMIN - - -	1756	13th June 1862	Construction and application of rails for railways. (Patented by George Haseltine.)
MORRILL, OSCAR FITZALAN -	2052	18th July 1862	A certain new and useful apparatus for generating heat for culinary or various other purposes.
MORRIS, ISRAEL - - -	875	29th March 1862	A new or improved machine for breaking up or cultivating land.
MORRIS, MOSES - - -	3130	21st Nov. 1862	Improvements in the manufacture of crinoline skirts and in the apparatus employed therein.
MORRIS, SAMUEL - - -	670	12th March 1862	Steam-boilers.
MORRIS, THOMAS - - -	1154	21st April 1862	Improvements in furnaces for the prevention or consumption of smoke.
MORRIS, TIMOTHY - - -	188	24th Jan. 1862	Improvements in submarine and other telegraphic communication and in apparatus connected therewith.
MORRIS, TIMOTHY - - -	469	22nd Feb. 1862	An improvement or improvements in the manufacture and ornamentation of metallic bedsteads, part of which is also applicable to other articles.
MORRIS, TIMOTHY - - -	1515	19th May 1862	Improvements in the means and apparatus for the protection of life and property by the agency of electricity.
MORRIS, TIMOTHY - - -	1516	19th May 1862	Improvements in obtaining and applying light and heat by electricity.
MORRISON, ENOCH RICE -	3408	20th Dec. 1862	Manufacture of automatic toy figures. (Patented by Alfred Viscent Newton.)
MORRISON, JAMES BEALL -	3402	20th Dec. 1862	Washing-machines. (Communicated by John Rickey Morrison.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MORRISON, JOHN - - -	1639	30th May 1862	Improvements in the construction of springs suitable for ladies' dresses or crinolines, and for chair, sofa and other seatings, as well as for bedstead and couch sackings.
MORRISON, JOHN RICKEY -	3402	20th Dec. 1862	Washing-machines. (Patented by James Beall Morrison.)
MORTON, ALEXANDER - -	3244	3rd Dec. 1862	Lawn mowing machines.
MORTON, WILLIAM - - -	2404	29th Aug. 1862	Construction of wheels and axle-trees for carriages.
MORVAN, ARTHUR GUY - -	640	10th March 1862	Improvements in producing by the aid of photography copies of maps, charts, plans and drawings. (Patented by Richard Archibald Brooman.)
MOSHEIMER, JOSEPH - - -	2425	2nd Sept. 1862	Certain improvements in machinery for amalgamating gold and silver or the ores thereof.
MOSS, BARROW - - - -	126	17th Jan. 1862	The application of steatite either alone or in combination with other substances to the manufacture of bricks, fire bricks, the lining of furnaces and other similar purposes.
MOSS, DENNIS TOPHAM - -	1593	27th May 1862	Fastening horse shoes.
MOSSelman, ALFRED FRAN- [ÇOIS.	2097	23rd July 1862	Manufacture of manure. (Patented by William Clark.)
MOSSMAN, WILLIAM - - -	1305	3rd May 1862	Improvements in the manufacture of bonnets, hats or coverings for the head.
MOTAY, CYPRIEN MARIE [TESSIÉ DU.	767	19th March 1862	Improvements in printing and painting upon glass and ceramic wares and upon metallic and mineral substances, also in the preparation of inks and colours for printing and painting. (Patented by Richard Archibald Brooman.)
MOTAY, CYPRIEN MARIE [TESSIÉ DU.	2771	14th Oct. 1862	Improvements in dressing millstones and in materials employed therein. (Patented by Richard Archibald Brooman.)
MOUGIN, JEAN CLAUDE FRAN- [ÇOIS.	195	25th Jan. 1862	Improvements in barcelonnettes or cradles for children or for dolls.
MOULD, WILLIAM - - - -	2270	13th Aug. 1862	Looms for weaving.
MOULD, WILLIAM - - - -	3476	30th Dec. 1862	Certain improvements in machinery or apparatus for plaiting or folding and measuring fabrics.
MOULE, JOHN - - - - -	3157	25th Nov. 1862	An improved method of deodorizing mineral oils and hydro-carbons.
MOULE, The Reverend HENRY	2644	29th Sept. 1862	Improvements in heating frames and the beds of hot-houses, also in heating hot-houses and other buildings used for growing plants and for other purposes.
MOULE, The Reverend HENRY	3207	29th Nov. 1862	Improvements in locomotive engines and in apparatus for generating steam for steam-engines.
MOULINE, EUGÈNE - - -	1560	23rd May 1862	Apparatus used in weaving.
MOULTON, GEORGE - - -	959	4th April 1862	Improvements in pentagraph machines used for tracing or engraving rollers or cylinders employed in printing calicoes and other surfaces.
MOUREN, JOSEPH - - - -	2862	23rd Oct. 1862	Tanning. (Patented by Richard Archibald Brooman.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Myh]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOURRIER, PIERRE - -	1312	3rd May 1862	Improvements in the manufacture of steel tyres, hoops and cylinders, and in furnaces employed therein and applicable to the melting of steel generally. (Patented by Thomas Snowden.)
MUGFORD, JABEZ H. - -	3194	28th Nov. 1862	Improvements in spur supporting rings for fixing plates, dishes and other like articles in glost ovens.
MUIR, MATTHEW ANDREW -	709	14th March 1862	Improvements in railway sleepers and chairs and in the mode of fixing rails.
MÜLLER, HENRY CHARLES -	556	1st March 1862	Manufacture of imitation bear skin caps.
MUNCK, ANTHONY - - -	348	10th Feb. 1862	Ships' logs.
MUNN, WILLIAM AUGUSTUS -	2495	11th Sept. 1862	An improved apparatus for capping, loading and closing cartridges for breech-loading fire-arms.
MUNTZ, EUGENE GUSTAVUS -	2622	25th Sept. 1862	Manufacture of axles.
MUNTZ, WILLIAM HENRY -	545	28th Feb. 1862	Paddle-wheels.
MUNTZ, WILLIAM HENRY -	2679	4th Oct. 1862	Improvements in armour for the protection of ships of war and other vessels and fortifications from the effects of cannon shot and other projectiles.
MURPHY, JAMES, senior	1122	17th April 1862	Looms.
MURRAY, JOHN - - -	1931	2nd July 1862	Portmanteaus.
MURRAY, WILLIAM FULLARTON	549	28th Feb. 1862	Improvements in machinery or apparatus for the manufacture of bobbins or holders for textile materials.
MURRAY, WILLIAM FULLARTON	1910	30th June 1862	Improvements in the manufacture of stone-ware bottles and in apparatus connected therewith.
MUSGRAVE, JAMES - - -	2963	3rd Nov. 1862	Improvements in the valves of steam hammers and steam hydraulic and gas engines.
MUSHET, ROBERT - - -	1202	24th April 1862	An improvement or improvements in the lining, repairing or "fettling" of puddling-furnaces.
MUSHET, ROBERT - - -	3106	19th Nov. 1862	Manufacture of cast steel.
MYERS, EDWARD - - -	123	17th Jan. 1862	An improved composition for preventing rust on bright steel, iron, brass or metal surfaces.
MYERS, THOMAS - - -	123	17th Jan. 1862	An improved composition for preventing rust on bright steel, iron, brass or metal surfaces.
MYERS, THOMAS - - -	744	17th March 1862	Improvements in meters for measuring water, gas or other fluids.
MYHRE, HELGE AUGUST -	348	10th Feb. 1862	Ships' logs.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
N.			
NADAL, JEAN - - -	652	11th March 1862	An improved portable fountain for water or other liquids.
NADAUD, ANNET JACQUES -	675	12th March 1862	Improvements in the manufacture of coloured inks. (Patented by William Clark.)
NANNESTAD, HANS - -	1742	11th June 1862	Cradles or swing cots. (Patented by John Henry Johnson.)
NAPIER, JAMES MURDOCH -	1281	30th April 1862	Machinery for manufacturing projectiles.
NAPIER, JAMES MURDOCH -	3487	31st Dec. 1862	Heating apparatus.
NAPIER, JAMES ROBERT -	3128	21st Nov. 1862	Improvements in boilers and valvular mechanism for steam-engines.
NASMYTH, JAMES - - -	438	19th Feb. 1862	Improvements in apparatus for obtaining a circular motive-power.
NATION, WILLIAM BRYER -	864	28th March 1862	Improvements in manufacturing boxes or cases and in the machinery or apparatus employed therein.
NAUDAIN, ANDREW - -	2074	21st July 1862	Improvements in looms for weaving all kinds of textile fabrics.
NAUGHT, WILLIAM MC - -	3274	6th Dec. 1862	Machinery for washing and drying textile fabrics and materials.
NAUHEIM, FERDINAND - -	2207	6th Aug. 1862	Ornamenting of boots, shoes and goloshes.
NAYLOR, WILLIAM - - -	1521	20th May 1862	Improvements in forging metals and in power hammers employed therein.
NEALE, CHARLES JAMES -	1426	12th May 1862	Improvements in apparatuses for measuring and registering corn and other grain.
NEALL, GEORGE - - -	1316	3rd May 1862	Improved apparatus for obtaining and applying motive-power especially applicable to propelling carriages on common roads.
NEEDHAM, JOSEPH - - -	1503	17th May 1862	Sheathing or coating iron ships.
NEEDHAM, JOSEPH - - -	1544	22nd May 1862	Improvements in breech-loading fire-arms and in cartridges for such fire-arms.
NEGRETTE, ENRICO ANGELO [LUDOVICO.	1223	25th April 1862	Improvements in the construction of mercurial minimum thermometers.
NEGRETTE, ENRICO ANGELO [LUDOVICO.	2681	25th Oct. 1862	Improved apparatus for ascertaining or testing the explosibility of liquid hydrocarbons. (Communicated by Guiseppe Tagliabue.)
NEILD, CHARLES - - -	3088	18th Nov. 1862	Improvements in fire alarms and indicators of temperature.
NEILL, PATRICK BENIGNUS O'	41	6th Jan. 1862	Screw wrenches or spanners.
NEILL, PATRICK BENIGNUS O'	1954	5th July 1862	Screw wrenches or spanners.
NELSON, EDWARD - - -	2802	16th Oct. 1862	Manufacture of apparatus for heating and superheating steam and air without decomposition.
NETHERSOLE, WILLIAM ED- [WARD.	3141	22nd Nov. 1862	Improved safety signals for fire-arm practice.
NETHERSOLE, WILLIAM ED- [WARD.	1356	7th May 1862	Improvements in parts of railway trucks and wagons, parts of which are applicable to railway carriages.
NETTLETON, JOSHUA - -	3405	20th Dec. 1862	Stoves.

[New]

AND APPLICANTS FOR PATENTS OF INVENTION.

[New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEUERBURG, MARTIN - -	28	4th Jan. 1862	An improved method and improved apparatus for treating and dressing ores and minerals, particularly applicable to tin, lead, copper, zinc and iron ores. (Patented by James Whitton Arundell.)
NEUERBURG, MARTIN - -	29	4th Jan. 1862	An improved method and improved apparatus for removing impurities from coal, parts of which invention are applicable for the separation and cleansing of ores and other minerals. (Patented by James Whitton Arundell.)
NEUERBURG, MARTIN - -	30	4th Jan. 1862	An improved method of and apparatus for communicating motion to fan ventilators, particularly applicable to ventilating mines. (Patented by James Whitton Arundell.)
NEWALL, JAMES - - -	785	21st March 1862	Improvements in supplying gas to railway carriages, stations, steamboats and other vessels, omnibuses or other carriages, at any required pressure, and in apparatus connected therewith.
NEWBURY, SAMUEL - -	3360	16th Dec. 1862	Improvements in looms for weaving and in arranging the warps therein.
NEWHAM, HENRY PAUL FRYER	2923	29th Oct. 1862	Manufacture or production of reversible shawls.
NEWINGTON, SAMUEL WIL- [MOTT.]	1250	29th April 1862	Improved apparatus for letting off and stopping the flow of liquids from casks and vessels, such apparatus forming a tap and substitute for the ordinary vent peg.
NEWMAN, JAMES - - -	392	13th Feb. 1862	Certain improvements in buttons for fastening and ornamenting articles of dress.
NEWMAN, JAMES - - -	2303	15th Aug. 1862	Machinery for the manufacture of metallic tubes.
NEWNAM, JAMES - - -	2698	6th Oct. 1862	Apparatus for crystallizing and for evaporating.
NEWTON, ALFRED VINCENT -	39	6th Jan. 1862	An improved manufacture of cigars. (Communicated by William Chevers Kneeland.)
NEWTON, ALFRED VINCENT -	309	5th Feb. 1862	An improvement in fire-arms. (Communicated by Caleb Hannum Bradley and Gideon Miles.)
NEWTON, ALFRED VINCENT -	842	27th March 1862	An improved process of and apparatus for separating the fibres of wood, flax, hemp and other vegetable substances, and extracting the colouring matters therefrom. (Communicated by Asel Storrs Lyman.)
NEWTON, ALFRED VINCENT -	928	2nd April 1862	Improvements in bits for taming or subduing vicious horses and breaking colts. (Communicated by Aurelius Langdon Weymouth.)
NEWTON, ALFRED VINCENT -	1084	15th April 1862	Improvements in the manufacture of blasting powder. (Communicated by Frederic Wynants and Prosper Esselens.)
NEWTON, ALFRED VINCENT -	1187	23rd April 1862	Improvements in looms for manufacturing tufted pile fabrics, and in the mode of operating such looms. (Communicated by Halcyon Skinner.)

New]

ALPHABETICAL INDEX OF PATENTEES

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, ALFRED VINCENT -	1238	26th April 1862	Improvements in the manufacture of hollow glass ware. (Communicated by James Seaman Atterbury, Thomas Bakewell Atterbury, and James Reddick.)
NEWTON, ALFRED VINCENT -	1239	26th April 1862	Lamps for burning coal oil and other hydrocarbons. (Communicated by Bradford Ripley Alden.)
NEWTON, ALFRED VINCENT -	1304	2nd May 1862	Improved electrical apparatus applicable to the lighting of gas. (Communicated by Robert Cornelius.)
NEWTON, ALFRED VINCENT -	1494	16th May 1862	Improved machinery applicable to the cutting of leather and other like uses. (Communicated by Caleb Griffin.)
NEWTON, ALFRED VINCENT -	1495	16th May 1862	Improved machinery applicable to the cutting out of boot and shoe soles and kindred operations. (Communicated by Caleb Griffin.)
NEWTON, ALFRED VINCENT -	1517	19th May 1862	Improved machinery for splitting leather. (Communicated by Joseph Andress Safford.)
NEWTON, ALFRED VINCENT -	1666	2nd June 1862	Improved machinery for breaking and cleaning flax and other like fibre yielding plants. (Communicated by Gelston Sanford and James Edward Mallory.)
NEWTON, ALFRED VINCENT -	1690	4th June 1862	Construction of grain and grass harvesters. (Communicated by David Osborne.)
NEWTON, ALFRED VINCENT -	1708	6th June 1862	Knitting-machinery. (Communicated by James Green Wilson.)
NEWTON, ALFRED VINCENT -	2040	16th July 1862	Sewing-machines. (Communicated by Nicholas Wilkins.)
NEWTON, ALFRED VINCENT -	2122	26th July 1862	An improved mode of attaching armour plates to ships. (Communicated by Thomas Shaw.)
NEWTON, ALFRED VINCENT -	2175	31st July 1862	Improved machinery for planing metal. (Communicated by William Sellers.)
NEWTON, ALFRED VINCENT -	2369	26th Aug. 1862	A novel construction of instrument applicable to the cleaning of windows. (Communicated by Jonas Farnsworth and Edward Millar Farnsworth.)
NEWTON, ALFRED VINCENT -	2382	27th Aug. 1862	Improved machinery for printing from engraved plates. (Communicated by Thomas Cecil Andrews.)
NEWTON, ALFRED VINCENT -	2526	13th Sept. 1862	An improved mode of and apparatus for sleeking, creasing and raising leather. (Communicated by William Thornton.)
NEWTON, ALFRED VINCENT -	2701	6th Oct. 1862	Improved apparatus for drying grain. (Communicated by Albert Hubbell Wright.)
NEWTON, ALFRED VINCENT -	2713	7th Oct. 1862	Construction of condensers or coolers. (Communicated by Francis Bowes Stevens.)
NEWTON, ALFRED VINCENT -	2728	9th Oct. 1862	Improved machinery for breaking and cleaning flax, hemp and other like fibrous substances. (Communicated by Gelston Sanford and James Edward Mallory.)

[New]

AND APPLICANTS FOR PATENTS OF INVENTION.

[New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, ALFRED VINCENT -	2748	11th Oct. 1862	Improvements in evaporating apparatus applicable to the manufacture of sugar. (Communicated by Théodore Champier de Villeneuve.)
NEWTON, ALFRED VINCENT -	2749	11th Oct. 1862	Sewing-machines. (Communicated by Walter Davis Richards.)
NEWTON, ALFRED VINCENT -	2907	5th Nov. 1862	A new process of obtaining printing surfaces, dies and substitutes for photographic negatives. (Communicated by Paul Schulse and Frederick William Billing.)
NEWTON, ALFRED VINCENT -	3012	7th Nov. 1862	Repeating fire-arms. (Communicated by William Albert Shepard.)
NEWTON, ALFRED VINCENT -	3146	22nd Nov. 1862	Machinery for cutting corks. (Communicated by Isaac Goodspeed.)
NEWTON, ALFRED VINCENT -	3165	25th Nov. 1862	Sewing-machines. (Communicated by James Alford House and Henry Alonzo House.)
NEWTON, ALFRED VINCENT -	3175	26th Nov. 1862	An improved mode of preparing oxide of zinc as a pigment. (Communicated by George Lewis.)
NEWTON, ALFRED VINCENT -	3224	1st Dec. 1862	Construction of steam and other vessels. (Communicated by William Montgomery Storm.)
NEWTON, ALFRED VINCENT -	3393	18th Dec. 1862	Improved apparatus for transmitting power. (Communicated by Julius Ferdinand Rockow.)
NEWTON, ALFRED VINCENT -	3400	19th Dec. 1862	Improved machinery for attaching metal eyelets to cloth and other materials. (Communicated by Charles Edward Howard.)
NEWTON, ALFRED VINCENT -	3408	20th Dec. 1862	Manufacture of automatic toy figures. (Communicated by Enoch Rice Morrison.)
NEWTON, ALFRED VINCENT -	3448	24th Dec. 1862	An improved construction of skate. (Communicated by William Henry Dutton.)
NEWTON, FRANCIS ROBERT -	635	8th March 1862	An apparatus for indicating and measuring the flow of liquids.
NEWTON, JOHN - - -	941	3rd April 1862	Improvements in the construction of breakwaters, piers and sea walls.
NEWTON, LEOPOLD - -	1423	12th May 1862	Improvements in machinery for turning, boring, cutting, shaping and reducing wood and other substances applicable for the manufacture of various articles.
NEWTON, MARCUS BOURNE -	608	7th March 1862	Improvements in the manufacture and construction of junction and other drain pipes in clay or other plastic materials.
NEWTON, THOMAS - - -	132	18th Jan. 1862	Sights for rifles.
NEWTON, WILLIAM EDWARD -	16	1st Jan. 1862	Improvements in coffee-pots and boilers for culinary purposes, part of which improvements are also applicable for generating steam. (Communicated by Edward Fielding Woodward.)

New]

ALPHABETICAL INDEX OF PATENTEES

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	226	28th Jan. 1862	Improvements in engines to be employed for pumping or forcing air or water, or for other purposes where a rectilinear motion is required. (Communicated by Wellington Lee.)
NEWTON, WILLIAM EDWARD -	239	29th Jan. 1862	Printing-machinery. (Communicated by Richard March Hoe.)
NEWTON, WILLIAM EDWARD -	240	29th Jan. 1862	Improvements in the boxes for the journals of railroad carriage and other axles. (Communicated by Davis Henry Dotterer.)
NEWTON, WILLIAM EDWARD -	287	3rd Feb. 1862	Machinery for spinning. (Communicated by Henri Schlumberger.)
NEWTON, WILLIAM EDWARD -	298	4th Feb. 1862	Improvements in the manufacture of iron and steel. (Communicated by John Gardner and Henry Richard Gardner.)
NEWTON, WILLIAM EDWARD -	375	13th Feb. 1862	Projectiles. (Communicated by James Woodbury and Solomon Gray.)
NEWTON, WILLIAM EDWARD -	498	24th Feb. 1862	Improvements in the joints or chairs of the permanent way of railways. (Communicated by Raymond French and William Goddard.)
NEWTON, WILLIAM EDWARD -	603	5th March 1862	An improved process and apparatus for reducing wood, straw and other vegetable substances to pulp, for the manufacture of paper. (Communicated by John Reynolds Knox.)
NEWTON, WILLIAM EDWARD -	679	12th March 1862	Manufacture of cartridges. (Communicated by Elam Potter and Julius Pomeroy.)
NEWTON, WILLIAM EDWARD -	697	13th March 1862	An improvement in armour plates for vessels of war. (Communicated by Edward Cox.)
NEWTON, WILLIAM EDWARD -	885	29th March 1862	An improved mode of applying acoustic apparatus in churches and other buildings and apartments. (Communicated by David Durham Stelle and Abraham Van Arsdale.)
NEWTON, WILLIAM EDWARD -	966	4th April 1862	Improvements in the manufacture of iron and steel. (Communicated by Aristide Balthazar Berard.)
NEWTON, WILLIAM EDWARD -	967	4th April 1862	Improvements in pumps for ships' use and other purposes. (Communicated by Thomas Hassbrow.)
NEWTON, WILLIAM EDWARD -	968	4th April 1862	An improvement in projectiles for ordnance. (Communicated by Henry Tatem Potter.)
NEWTON, WILLIAM EDWARD -	1017	9th April 1862	An improved apparatus for raising and forcing water and other liquids. (Communicated by Abel Brear.)
NEWTON, WILLIAM EDWARD -	1107	16th April 1862	An improvement in setting artificial teeth. (Communicated by David Steinberg.)
NEWTON, WILLIAM EDWARD -	1108	16th April 1862	Improvements in the manufacture of cannon and other ordnance, and of solid and hollow cylinders for shafting and other purposes, of wrought iron or steel or both combined. (Communicated by David Tomlinson Yeakel.)

[New]

AND APPLICANTS FOR PATENTS OF INVENTION.

[New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	1188	23rd April 1862	An improved fertilizing composition. (Communicated by John McAuley Gallacher.)
NEWTON, WILLIAM EDWARD -	1189	23rd April 1862	Improvements in the manufacture of imitation lace net or openwork fabrics. (Communicated by Lucien Henri L'Heureux, Eugene Victor L'Heureux and Charles Alphonse L'Heureux.)
NEWTON, WILLIAM EDWARD -	1224	25th April 1862	Chimneys for lamps. (Communicated by Harvey Brown.)
NEWTON, WILLIAM EDWARD -	1261	29th April 1862	Improvements in machinery for picking, burring and cleaning wool and other fibrous substances. (Communicated by Calvin Luther Goddard.)
NEWTON, WILLIAM EDWARD -	1262	29th April 1862	Improvements in the construction of mowing and reaping machines. (Communicated by Louis Adolphe Faure.)
NEWTON, WILLIAM EDWARD -	1285	30th April 1862	Lamps. (Communicated by Samuel Holmes.)
NEWTON, WILLIAM EDWARD -	1320	3rd May 1862	An improved method of joining boxes. (Communicated by Wright Duryea.)
NEWTON, WILLIAM EDWARD -	1437	13th May 1862	Improvements in coffee pots and boilers for culinary purposes, part of which improvements are also applicable for generating steam. (Communicated by Edward Fielding Woodward.)
NEWTON, WILLIAM EDWARD -	1538	21st May 1862	Improvements in the manufacture of metallic or mineralized fabrics or surfaces. (Communicated by Charles Husson.)
NEWTON, WILLIAM EDWARD -	1651	31st May 1862	Improvements in the treatment of cloth and other textures, leather or animal tissues for the purpose of rendering them more durable and impermeable to water and other fluids, and for producing from any firm fibrous texture such as cloth, cotton, woollen or mixed goods a durable artificial leather. (Communicated by William Elmer.)
NEWTON, WILLIAM EDWARD -	1653	31st May 1862	Improvements in the construction and operation of shot proof gun towers and the working of the guns therein, for sea vessels, floating harbour defences, forts or land fortifications. (Communicated by James Eads.)
NEWTON, WILLIAM EDWARD -	1664	2nd June 1862	An improved mode of making the handles of shovels, spades, dung forks and other analogous articles. (Communicated by Alonso Virgil Blanchard, John Dickinson Blanchard and Franklin Blanchard.)
NEWTON, WILLIAM EDWARD -	1703	5th June 1862	Improvements in the construction of organs and other wind instruments, parts of which improvements are also applicable for regulating the pressure and flow of gas and air. (Communicated by Aristide Cavaillé-Coll.)

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ALPHABETICAL INDEX OF PATENTEES

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	1763	13th June 1862	Improvements in fire-arms and in the attachment of bayonets or swords thereto. (Communicated by Eben Townsend Starr.)
NEWTON, WILLIAM EDWARD -	1764	13th June 1862	An improvement in elongated bullets. (Communicated by Elijah Day Williams and Cyrus West Field)
NEWTON, WILLIAM EDWARD -	1801	18th June 1862	Electrical brushes. (Communicated by Pierre Nos D'Argence.)
NEWTON, WILLIAM EDWARD -	1911	30th June 1862	Improved apparatus for picking or gathering cotton. (Communicated by John Jordan Eckel.)
NEWTON, WILLIAM EDWARD -	1923	1st July 1862	Improved machinery for washing wool. (Communicated by Walter Davis Richards.)
NEWTON, WILLIAM EDWARD -	2064	19th July 1862	Improvements in ordnance and projectiles for the same. (Communicated by Albert Hamilton Emery.)
NEWTON, WILLIAM EDWARD -	2065	19th July 1862	Machinery for preparing fibrous substances for combing. (Communicated by Antoine Louis Warnery.)
NEWTON, WILLIAM EDWARD -	2176	31st July 1862	Lubricating-compounds. (Communicated by Eli Emery Hendrick.)
NEWTON, WILLIAM EDWARD -	2186	1st Aug. 1862	Improvements in projectiles for ordnance and small arms, and in the wads or sabôts to be used therewith. (Communicated by Horace Hollister Day, Michael Ritner and Josiah Newell Bird.)
NEWTON, WILLIAM EDWARD -	2239	11th Aug. 1862	Improved machinery for compressing powder for cartridges. (Communicated by Stephen Davis Tucker.)
NEWTON, WILLIAM EDWARD -	2316	18th Aug. 1862	Improvements in connecting plates, sheets or slabs of metal or other materials and fastening the same on to framing, applicable to armour plating for ships, vessels or batteries, and to roofing and other similar purposes. (Communicated by Valentin Lasserre.)
NEWTON, WILLIAM EDWARD -	2360	23rd Aug. 1862	Improvements in the mode of and apparatus for treating fermentable substances for brewing and distilling. (Communicated by Friedrich Wilhelm Hoepfner.)
NEWTON, WILLIAM EDWARD -	2390	27th Aug. 1862	An improved method of producing light for the various purposes of artificial illumination. (Communicated by George Hand Smith.)
NEWTON, WILLIAM EDWARD -	2457	5th Sept. 1862	Lamps. (Communicated by John Jacob Miller and Ernst Prussing.)
NEWTON, WILLIAM EDWARD -	2551	17th Sept. 1862	Watches or time-keepers. (Communicated by Henri du Pasquier.)
NEWTON, WILLIAM EDWARD -	2649	31st Oct. 1862	Improvements applicable to the carriages and beds of guns, mortars and other ordnance. (Communicated by William Judson.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Nob]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	2959	1st Nov. 1862	Improved apparatus for drying grain and other substances. (Communicated by Peter Clopper Schuyler.)
NEWTON, WILLIAM EDWARD -	3032	10th Nov. 1862	Treatment of maize or Indian corn preparatory to grinding the same into flour. (Communicated by Victor Pierre Célestin Baud.)
NEWTON, WILLIAM EDWARD -	3289	8th Dec. 1862	Preserving animal substances. (Communicated by Victor Pierre Célestin Baud.)
NEWTON, WILLIAM EDWARD -	3304	9th Dec. 1862	Fire-arms. (Communicated by Leonhard Kastli and Charles Custer.)
NEWTON, WILLIAM EDWARD -	3343	13th Dec. 1862	An improved mode of and apparatus for repairing the rails, points, switches and other parts of the permanent way of railways. (Communicated by William Henry Dunning.)
NEWTON, WILLIAM EDWARD -	3468	29th Dec. 1862	Preserving organic substances from decay. (Communicated by Leonard Laureau.)
NICHOLL, JOHN RICHARD -	2201	5th Aug. 1862	Improved means of and apparatus for utilizing and disposing of the sewage of towns and villages.
NICHOLL, JOHN RICHARD -	2367	24th Oct. 1862	An improved construction of fire-place or stove grate.
NICHOLSON, EDWARD CHAMBERS.	147	20th Jan. 1862	Improvements in the preparation of colours suitable for dyeing and printing.
NICHOLSON, EDWARD CHAMBERS.	1857	24th June 1862	Preparation of colouring matters applicable to dyeing and printing.
NICHOLSON, JOSEPH ALFRED -	2376	25th Oct. 1862	Improvements in lead crayon and other pencils.
NICHOLSON, RICHARD -	1627	30th May 1862	Construction of lawn mowing machines.
NICHOLSON, WILLIAM NEWZAM.	986	7th April 1862	Ranges and stoves.
NICKLIN, JOSEPH - - -	1649	31st May 1862	An improved crinoline connector and suspender.
NICKOLS, DANIEL - - -	2715	8th Oct. 1862	Machinery or apparatus for measuring and registering lace and other similar articles.
NICKSON, JOHN - - -	2412	1st Sept. 1862	An improved foundation or groundwork for plaster for ceilings, walls, partitions and other purposes.
NICOLE, ADOLPHE - - -	1461	14th May 1862	Improvements in stop watches and time-keepers, and in instruments for measuring accurately short intervals of time.
NIELD, JOHN - - -	1790	17th June 1862	Moulding or manufacturing pipes, columns or other similar articles of cast-iron or other metals.
NIELD, THOMAS ARTHUR -	1790	17th June 1862	Moulding or manufacturing pipes, columns or other similar articles of cast-iron or other metals.
NIGHTINGALE, ROBERT -	898	31st March 1862	Markers, butts or mantelets.
NIMAN, LOUIS - - -	2288	14th Aug. 1862	An improved cigar tube or holder.
NIXON, THOMAS - - -	1026	10th April 1862	An improved bowling apparatus for cricket balls.
NOBLE, ALFRED - - -	2136	28th July 1862	Obtaining and treating compounds of alumina.

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ALPHABETICAL INDEX OF PATENTEEES

[Nut

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NOCK, GEORGE - - -	2156	30th July 1862	A new or improved safety or moveable self-acting crossing for railways. (Communicated by Joseph Wood.)
NOCK, JOHN - - -	989	4th April 1862	An improvement or improvements in gas cooking-ranges.
NODDINGS, RICHARD - -	612	7th March 1862	Apparatus for cultivating or tilling land.
NOLDEN, MELCHIOR - -	502	25th Feb. 1862	An improved machine for shelling or husking all kinds of grain. (Patented by John Piddington.)
NORFOLK, EDWARD LEMAN -	1958	7th July 1862	Improvements in the manufacture of gas and the apparatus to be employed for that purpose. (Patented by James Mc Geary.)
NORMAN, JOHN, jr. - -	1326	5th May 1862	Certain improvements in the construction of furnaces for steam-boilers.
NORMAN, WILLIAM - -	2167	30th July 1862	Improvements in tables and drawers or other sliding receptacles.
NORMANDY, ALPHONSE RENÉ [LE MIRE DE.	70	10th Jan. 1862	An improved method of fixing tubes in tube plates.
NORMANDY, ALPHONSE RENÉ [LE MIRE DE.	664	12th March 1862	An improved method of connecting gas and other pipes.
NORRIS, JAMES - - -	2150	29th July 1862	Arrangement or construction of ovens.
NORTON, JAMES LEE - -	293	4th Feb. 1862	Improvements in beating, stretching and drying fabrics and in the apparatus employed therein, part of which apparatus is also applicable for thrashing linseed. (Partly communicated by William Aldon.)
NORTON, JAMES LEE - -	1280	30th April 1862	Improvements in apparatus for drying fibrous materials and yarns.
NORTON, JAMES LEE - -	1675	3rd June 1862	Machinery for raising and forcing water.
NORTON, JEREMIAH HENRY -	705	14th March 1862	Gas regulators. (Patented by George Henry Sanborn.)
NOSWORTHY, WILLIAM SAMUEL	645	10th March 1862	Improvements in upright and horizontal pianofortes.
NOTLEY, ALPHONSO FLORENCIO	329	7th Feb. 1862	Fire guards.
NOUALHIER, EUGENE THÉO- [DORE.	866	28th March 1862	An improved ventilator.
NUGENT, EDWARD - - -	24	3rd Jan. 1862	Fire-arms.
NUNN, HENRY - - -	835	26th March 1862	Improvements in the construction of mangles.
NUNN, WALTER - - -	1143	19th April 1862	Mills for grinding.
NUNN, WILLIAM - - -	1023	10th April 1862	Improvements in the construction of lanterns for ships and signals.
NURSE, DAVID, junior - -	2183	1st Aug. 1862	An improved annealing pot.
NURSE, ROBERT - - -	2183	1st Aug. 1862	An improved annealing pot.
NUSSEY, NICHOLAS - -	1055	12th April 1862	Improvements in machinery or apparatus for preparing and combing wool, flax, hair, cotton, silk and other fibrous materials.
NUTTING, JOHN GEORGE -	2381	27th Aug. 1862	Manufacture of buttons.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
O.			
O'NEILL, PATRICK BENIGNUS	41	6th Jan. 1862	Screw wrenches or spanners.
O'NEILL, PATRICK BENIGNUS	1954	5th July 1862	Screw wrenches or spanners.
OAKLEY, JOHN THOMAS -	2315	18th Aug. 1862	Heating stoves employed for drying and other purposes.
OATES, JAMES - - -	75	10th Jan. 1862	Washing-machines.
ODDIE, JOHN - - -	1506	26th May 1862	Certain improvements in machinery for winding, sizing and weaving.
OFFORD, JOSEPH - - -	1203	24th April 1862	Carriages.
OGSTON, GEORGE HENRY -	3017	8th Nov. 1862	Treating nitrous acid and nitric oxide in order to convert them into nitric acid.
OKES, JOHN CHARLES RAY- [MOND.	3195	28th Nov. 1862	Double cylinder expansive steam-engines.
OLDFIELD, BENJAMIN - -	3223	1st Dec. 1862	Looms.
OLDHAM, GEORGE WILLIAM -	3117	20th Nov. 1862	Preparing and dyeing silk waste, flax, hemp, Indian or China grass or other similar fibrous substances.
OLIVIER, ETIENNE MAURICE -	2275	13th Aug. 1862	A new process of manufacturing carbonate of soda by the application of sulphuret of sodium, and in apparatus for the same.
ONION, THOMAS - - -	2188	2nd Aug. 1862	Improvements in rotary steam-engines and in propellers adapted to propelling vessels in water.
ONIONS, JOHN COLLINGWOOD	2182	1st Aug. 1862	Portable forges.
ORAM, GEORGE JOHN - -	481	22nd Feb. 1862	A revolving pendant for giving greater security to watches and lockets against theft.
ORLOWSKI, VALENTINE - -	2850	22nd Oct. 1862	Motive-power carriages.
ORMEROD, EDWARD - - -	1309	3rd May 1862	Improvements in machinery or apparatus for cutting or dressing stones, which are also applicable for hammering, crushing or otherwise reducing metals and other materials.
ORR, JOHN - - - -	1999	11th July 1862	Improvements in weaving piled fabrics and in the machinery or apparatus connected therewith.
ORR, WILLIAM - - - -	209	27th Jan. 1862	Machinery or apparatus for the manufacture of sugar.
ORTH, CHARLES ANTON -	3137	21st Nov. 1862	Apparatus for obtaining and applying motive-power.
OSBORNE, DAVID - - -	1690	4th June 1862	Construction of grain and grass harvesters. (Patented by Alfred Vincent Newton.)
OSBORNE, MARK - - -	3311	10th Dec. 1862	Manufacture of cast-iron fenders.
OSMAN, CHARLES - - -	1824	20th June 1862	Improvements in the manufacture of elastic or yielding surfaces for sitting, lying or reclining upon, part of which improvements are applicable to other purposes.
OSWALD, EDWARD - - -	2670	3rd Oct. 1862	Apparatus for purifying "glaze," "slip" or other potters' materials.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
UDRY, CHARLES FRANÇOIS [LEOPOLD.	2410	30th Aug. 1862	Coating or covering metallic surfaces with copper. (Patented by John Henry Johnson.)
UDRY, CHARLES FRANÇOIS [LEOPOLD.	2726	9th Oct. 1862	Manufacture of paints or pigments. (Patented by John Henry Johnson.)
OWEN, EVAN - - -	796	22nd March 1862	Certain improvements in the hydraulic engines known as "Turbines."
OWEN, HENRY - - -	175	23rd Jan. 1862	Improvements in the manufacture of stockings and other articles of hosiery.
OWEN, ROBERT ALEXANDER -	865	28th March 1862	Improvements in feathering and varying the pitch of screw propellers for steam ships.
OWEN, WILLIAM - - -	1687	27th June 1862	Manufacture of woven tickets of silk, cotton or wool or mixture of those materials, for the purpose of marking or advertising goods.
OWEN, WILLIAM - - -	2401	29th Aug. 1862	Improvements in the manufacture of railway wheels and tyres, and in securing tyres to wheels.
OWEN, WILLIAM - - -	2673	25th Oct. 1862	Stoves.
OXLEY, JAMES - - -	1275	30th April 1862	Apparatus for cutting and chopping bread and other substances.
OXLEY, JAMES - - -	1395	9th May 1862	Improvements in apparatus for facilitating the processes of mashing and sparging in breweries and distilleries.
OXLEY, JAMES - - -	2706	7th Oct. 1862	Apparatus for expressing and separating beer from yeast or barm.
OXLEY, JAMES - - -	3102	18th Nov. 1862	Apparatus for separating liquid from substances.
OXLEY, JOHN - - -	1539	22nd May 1862	Improvements in making wheels and in the machinery to be employed therein.
OZOU-DE-VERRIE AUGUSTE [TOUSSAINT.	250	30th Jan. 1862	Mechanical wrenches. (Patented by William Clark.)

P.

PAGE, EDMUND - - -	166	22nd Jan. 1862	Improvements in laths for Venetian blinds, in painting such laths, and in raising and lowering Venetian blinds.
PADGHAM, GEORGE - - -	1769	14th June 1862	Improvements in steam-boiler and other furnaces, applicable in part to grates of various kinds.
PADMORE, EDWARD - - -	31	4th Jan. 1862	Improvements in the manufacture of piled fabrics and in machinery or apparatus employed therein.
PAGE, ROBERT - - -	2692	6th Oct. 1862	Improvements in stables and stabling, applicable in part to kernels and to the floors of fish-houses.
PAINE, JAMES - - -	103	14th Jan. 1862	Improvements in printing and ornamenting kamptulicon when applied to fabrics.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PALAYER, LOUIS FERDINAND -	2681	4th Oct. 1862	Improved means or apparatus by the use of which pierced or perforated cocoons may be spun. (Patented by William Edward Gedge.)
PALAZOT, BERNARD - -	2386	23th Aug. 1862	Smoke-consuming furnaces. (Patented by Marc Antoine François Mennons.)
PALIS, FELIX CÉLESTIN - -	1144	19th April 1862	Breech-loading fire-arms. (Patented by Benjamin Browne.)
PALLING, FRANCIS - - -	3171	26th Nov. 1862	An improved fountain pen-holder.
PALLISER, WILLIAM - - -	3038	11th Nov. 1862	Improvements in the construction of ordnance and in the projectiles to be used therewith.
PALLISER, WILLIAM - - -	3281	6th Dec. 1862	Screw-bolts.
PALMER, FITZMAURICE - -	3064	15th Nov. 1862	Projectiles.
PALMER, WILLIAM - - -	631	8th March 1862	Manufacture of candles.
PALMER, WILLIAM - - -	826	25th March 1862	Lamps.
PALMER, WILLIAM - - -	1592	27th May 1862	Revolving fire-arms.
PALMER, WILLIAM - - -	2528	13th Sept. 1862	Improvements in lamps and in apparatus used therewith.
PALSER, JOSEPH BENCE - -	2729	9th Oct. 1862	Improved apparatus for manufacturing paper pulp and recovering the alkali used in such manufacture.
PANTHEL, FRANCIS - - -	327	7th Feb. 1862	Sewing-machines.
PARFITT, EDWARD - - -	653	11th March 1862	A watch protector.
PARFREY, YOUNGS - - -	673	29th March 1862	Breech-loading fire-arms.
PARIS, STANISLAUS JOSEPH -	2334	21st Aug. 1862	Alphabetical electric telegraphs.
PARK, JAMES - - - -	1081	14th April 1862	Certain improvements in or applicable to steam-engines.
PARKER, FREDERICK - - -	3422	23rd Dec. 1862	Carriages.
PARKER, HARRISON - - -	2261	12th Aug. 1862	Machinery for cutting veneers. (Patented by Augustus Bryant Childs.)
PARKER, JAMES - - - -	552	28th Feb. 1862	An improved mode of applying steam as a motive-power for propelling vessels and for other purposes.
PARKER, JAMES - - - -	833	26th March 1862	Improvements in steam-engines and in apparatus connected therewith. (Partly communicated by Bernhard August Schäffer.)
PARKER, JOHN - - - -	92	13th Jan. 1862	Improvements in steam-engines, boilers, furnaces and apparatus in connection therewith or applicable thereto.
PARKER, THOMAS - - - -	1913	30th June 1862	Improvements in tinting or dyeing fabrics composed of mixed animal and vegetable fibres.
PARKER, WILLIAM - - - -	641	10th March 1862	Steam-engines.
PARKES, ALEXANDER - - -	1147	19th April 1862	Improvements in the manufacture of rollers for surface printing and embossing.
PARKES, ALEXANDER - - -	1149	19th April 1862	Surface condensers.
PARKES, FREDERICK MAJOR -	495	24th Feb. 1862	An improvement in the production or manufacture of gas for lighting and heating.
PARKES, FREDERICK MAJOR -	2025	14th July 1862	Improvements in the manufacture of gas for lighting and heating, and in apparatus employed in the said manufacture.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PARKES, JOHN - - -	1878	26th June 1862	Gas lanterns.
PARKES, JOHN JOSEPH - -	3040	11th Nov. 1862	Lever bell pulls.
PARKINSON, FREDERICK -	2685	4th Oct. 1862	Ladies' shawls and cloaks.
PARKINSON, JOHN - - -	1914	1st July 1862	Apparatus for regulating the flow and pressure of steam and other fluids.
PARKINSON, JOHN - - -	3070	14th Nov. 1862	Improvements applicable to weighing-machines, parts of which may be used to measure liquids.
PARKINSON, ROBERT - -	1565	26th May 1862	Improvement in the manufacture of rollers for preparing, spinning, doubling, sizing, winding, warping and weaving.
PARKINSON, THOMAS - -	1326	5th May 1862	Certain improvements in the construction of furnaces for steam-boilers.
PARKINSON, WILLIAM - -	1566	26th May 1862	Certain improvements in machinery for winding, sizing and weaving.
PARNELL, MICHAEL LEOPOLD	2822	20th Oct. 1862	Construction of thermometers.
PAROD, ERNEST ULYSSE -	2423	1st Sept. 1862	Improvements in apparatus for regulating or controlling the working of motive-power engines, applicable also to the regulation of the flow of liquid, air or gas through pipes or conduits. (Patented by John Henry Johnson.)
PARSONS, PERCEVAL MOSES -	1478	16th May 1862	Improvements in ordnance and other fire-arms and in tools for rifling the same.
PARSONS, PERCEVAL MOSES -	1699	5th June 1862	Improvements in ordnance and in tools for rifling the same, parts of which improvements are applicable to small arms.
PARTINGTON, EDWARD - -	601	5th March 1862	Certain improvements in the method of cleansing and preparing rags or other materials used in the manufacture of paper, and in machinery or apparatus connected therewith.
PARTINGTON, JOHN - - -	1655	2nd June 1862	Certain improvements in looms for weaving.
PARTRIDGE, SAMUEL - -	2020	14th July 1862	Railway signals.
PARTRIDGE, THOMAS, senior -	494	24th Feb. 1862	Improvements in apparatus for printing railway and other tickets or cards.
PASQUIER, HENRI DU - -	2551	17th Sept. 1862	Watches or time-keepers. (Patented by William Edward Newton.)
PASSEY, HENRY RICHARD -	2288	14th Aug. 1862	An improved cigar tube or holder.
PATERSON, ALEXANDER JOHN	708	14th March 1862	Improvements in the construction of electric telegraph cables.
PATERSON, JAMES - - -	445	19th Feb. 1862	Improvements in means or apparatus for re-burning animal charcoal. (Communicated by George Alexander Drummond.)
PATERSON, JAMES - - -	455	20th Feb. 1862	Improvements in the use of animal charcoal. (Communicated by George Alexander Drummond.)
PATERSON, JAMES - - -	456	20th Feb. 1862	Improvements in means or apparatus for facilitating the evaporation of saccharine solutions. (Communicated by George Alexander Drummond.)
PATERSON, JOHN - - -	1619	29th May 1862	An improved hemmer or instrument for turning over the edges of a binding or strip of linen or other material and preparing it for stitching in sewing-machines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PATERSON, WILLIAM - -	623	8th March 1862	Finishing woven fabrics.
PATERSON, WILLIAM - -	890	29th March 1862	Improvements in the manufacture of iodine.
PATRICK, WILLIAM BARKER -	13	1st Jan. 1862	Improvements in the manufacture of sugar and in the apparatus employed therein.
PATTEN, THOMAS - - -	1879	26th June 1862	Construction of electro-voltaic plate work for medical and other purposes. (Patented by John Henry Johnson.)
PATTERSON, JOHN - - -	8425	23rd Dec. 1862	Machinery or apparatus for grinding, crushing, cutting, cleaning and hulling or shelling various kinds of farm or vegetable produce, also applicable to the crushing or grinding of minerals and other substances.
PATTISON, GODFREY THOMAS [HOPE.	2792	16th Oct. 1862	Machinery or apparatus for embossing or finishing woven fabrics.
PATTISON, GODFREY THOMAS [HOPE.	2793	16th Oct. 1862	The imparting of an improved surface or appearance to fabrics woven with mixed materials.
PAUL, MATTHEW - - -	1301	2nd May 1862	Improvements in windlasses and capstans or ships' winding apparatus.
PAUMIER, PIERRE ARMAND -	3177	27th Nov. 1862	A new atmospheric sailing propeller.
PAYNE, GEORGE - - -	2089	22nd July 1862	Horse shoes.
PAYNE, JOHN BELLAMY -	308	5th Feb. 1862	Improvements in the treatment or preparation of hemp, flax and other analogous fibrous substances for spinning.
PAYNE, JOHN BELLAMY -	2824	20th Oct. 1862	Machinery for the spinning, twisting and doubling and laying of hemp, flax and other fibrous substances.
PAYNE, WILLIAM - - -	2668	3rd Oct. 1862	A new or approved apparatus for regulating the pressure of steam in steam-boilers and for indicating when the water in steam-boilers is too high or too low.
PAYRAS, PHILIPPE URBAIN -	1625	30th May 1862	Protecting dry or green hides from vermin.
PEACOCK, JAMES - - -	2074	21st July 1862	Improvements in looms for weaving all kinds of textile fabrics.
PEACOCK, RICHARD ATKINSON	1088	15th April 1862	Improvements in constructing and working lock gates for docks, harbours, canals and navigable rivers.
PEACOCK, ROBERT - - -	651	11th March 1862	Improvements in the manufacture of window blinds.
PEAN, LAURENT MARIE RENÉ	2672	3rd Oct. 1862	Improved atmospheric toy pistols and guns. (Patented by William Clark.)
PEBERDY, SAMUEL - - -	1489	16th May 1862	Improvements in apparatus for knitting ribbed fabrics.
PEEBLES, DAVID BRUCH -	2424	2nd Sept. 1862	Wet gas meters.
PEEK, ALFRED - - -	2894	27th Oct. 1862	Apparatus for evaporating saccharine and saline solutions.
PEEL, GEORGE, junior - -	1678	4th June 1862	Improvements in the construction, arrangement and mode of working hydraulic presses and in the arrangement of force pumps.
PELTIER, CÉLESTIN, junior -	1862	25th June 1862	Ploughs. (Patented by William Clark.)
PENDER, JOHN - - -	2531	15th Sept. 1862	Improvements in hoops for fastening bales and in machinery or apparatus for making the same.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PENDLEBURY, GEORGE - -	436	19th Feb. 1862	Machinery for doubling, folding or plaiting cloth.
PENDLEBURY, JOHN TOMLIN- [SON.]	436	19th Feb. 1862	Machinery for doubling, folding or plaiting cloth.
PENDLEBURY, JOHN TOMLIN- [SON.]	726	15th March 1862	An improved form of lubricator.
PENDLEBURY, JONATHAN -	272	1st Feb. 1862	Improvements in the method of and apparatus for lubricating steam-engine cylinders, slides and other surfaces.
PENDLEBURY, THOMAS - -	726	15th March 1862	An improved form of lubricator.
PENFOLD, OLIVER - - -	568	1st March 1862	An improved candle lamp.
PENGELLY, THOMAS NATHA- [NIEL.]	1633	30th May 1862	Apparatus for hoisting goods.
PENSON, RICHARD KYRKE -	3210	29th Nov. 1862	Apparatus used for warming railway carriages. (Communicated by Adrien Delcambre.)
PERIN, JEAN LOUIS - -	1125	17th April 1862	Machinery for mortising wood.
PERKES, MATILDA CART- [WRIGHT ASTON.]	2657	23rd Oct. 1862	An equilibrium double-action revolving rudder, self-balancing drag, and improved steering gear. (Communicated by Samuel Perkes.)
PERKES, SAMUEL - - -	2657	23rd Oct. 1862	An equilibrium double-action revolving rudder, self-balancing drag, and improved steering gear. (Patented by Matilda Cartwright Aston Perkes.)
PERKIN, WILLIAM HENRY -	2107	24th July 1862	Improvements in printing and dyeing when aniline and analogous coal tar dyes are employed, also in preparing coloring matters. (Communicated by Alexandre Schults.)
PERKINS, THOMAS - - -	1267	30th April 1862	An improvement or improvements in mounting photographic portraits for visiting cards and in mounting photographs in general.
PERKINS, WILLIAM - - -	3410	20th Dec. 1862	Improvements in the manufacture of a substitute for turpentine, which is also applicable to the manufacture of varnishes, and to purposes to which turpentine is now ordinarily applied.
PERKS, WILLIAM, junior -	1616	29th May 1862	An improvement or improvements in metallic sash bars for windows, skylights, hot-houses and other like purposes.
PERNOD, JULES - - -	3389	18th Dec. 1862	A production derived from madders called "Purpurine."
PERNOLET, CHARLES CLAUDE [PHILIBERT NICOLAS.]	1774	14th June 1862	Improvements in cooking-ovens, in collecting and utilizing the products resulting from the distillation or carbonization of coal and other matters producing coke, and in apparatus employed therein. (Patented by Richard Archibald Broome.)
PERREAUX, LOUIS GUILLAUME	1327	5th May 1862	Certain improvements in clocks or machines for keeping time.
PERBY, ARCHIBALD HEWISON	1677	4th June 1862	Improvements in fastenings for and in the method of fastening together or securing railway chairs and sleepers and for other similar purposes.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PERRY, JAMES HILLERT -	1541	22nd May 1862	An improved method of curing diseases of the human body by magnetism.
PERRY, STUART - - -	1212	25th April 1862	Circuit horse powers. (Patented by John Taylor Davies.)
PETERS, JOHN - - -	377	13th Feb. 1862	Improvements in portable steam-engines, applicable to locomotive, stationary and marine engines.
PETERS, JOSEPH - - -	2272	13th Aug. 1862	An improved hydraulic cement.
PETERSON, GEORGE - - -	1874	26th June 1862	Apparatus for ascertaining the quantity and strength of spirits or other products obtained by the process of distillation. (Communicated by Theodor Steinberg.)
PETIN, HIPPOLYTE ULYSSE -	3472	30th Dec. 1862	Improvements in ingot moulds employed in the casting of steel and other metals. (Patented by John Henry Johnson.)
PETIT, CHARLES FELIX -	1950	5th July 1862	Hollow plates for hydraulic presses. (Patented by Richard Archibald Brooman.)
PETIT, HIPPOLYTE - - -	1950	5th July 1862	Hollow plates for hydraulic presses. (Patented by Richard Archibald Brooman.)
PETIT, JULES EMILE - - -	1950	5th July 1862	Hollow plates for hydraulic presses. (Patented by Richard Archibald Brooman.)
PETRE, LOUIS - - - -	78	10th Jan. 1862	The application of velvet, plush, cloth, leather, American cloth, oil cloth and other such like substances alone and in combination with other materials, for advertising show boards, show cards, window tickets and all such uses.
PETRIE, JAMES - - - -	1902	2 th June 1862	Slide valves for steam-engines.
PETRIE, JAMES - - - -	3459	27th Dec. 1862	Slide valves for steam-engines.
PETRIE, JOHN, jr. - - -	1032	10th April 1862	Improvements in machinery or apparatus for blowing and exhausting air.
PETRIE, JOHN, junior - - -	2289	14th Aug. 1862	Machinery or apparatus for blowing and exhausting air.
PETRIE, JOHN, junior - - -	2998	5th Nov. 1862	Machinery or apparatus for washing wool and other fibrous materials.
PETRIE, JOHN, junior - - -	3341	13th Dec. 1862	Machinery or apparatus for washing wool and other fibrous materials.
PETRIE, WILLIAM - - - -	1528	20th May 1862	Improvements in vessels for boiling chemical products as sulphuric acid, and in apparatus for indicating the degree of concentration and temperature of such products in the boiler, which apparatus is applicable to other pyrometric purposes.
PETTET, WILLIAM - - - -	2624	26th Sept. 1862	An improved covering for protecting vessels and forts from shot, shell and other war-like missiles. (Partly communicated by William Stiles.)
PETTIT, GEORGE BROOKS -	715	15th March 1862	An improved method of and apparatus for heating water and other liquids, applicable also to the evaporation of liquids.
PEYROUSE, LÉO DE LA - -	630	26th March 1862	Improvements in the preservation of animal substances.
PEYROUSE, LÉO DE LA - -	1385	8th May 1862	Improvements in treating neutral and acid fatty or oily substances, resins and resinous substances - and compounds or products containing paraffine.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PEYTON, EDWARD - - -	1062	14th April 1862	Improvements in angle iron applicable to metallic bedsteads, roofs, bridges and other similar purposes.
PHÉLOUX, ANTOINE ALEXAN- [DRE.	3177	27th Nov. 1862	A new atmospheric sailing propeller.
PHELPS, WILLIAM - - -	790	21st March 1862	An improved woven fabric, and improvements in machinery for manufacturing the same.
PHELPS, WILLIAM - - -	3349	15th Dec. 1862	Locks.
PHILIPPSON, FERDINAND CARL	1091	15th April 1862	Steam hammers. (Communicated by Louis Schwartzkopff.)
PHILLIPS, ANDREW - - -	2076	21st July 1862	Looms for weaving figured fabrics.
PHILLIPS, GEORGE - - -	243	30th Jan. 1862	Improvements in the distillation and rectification of alcohols or spirits.
PHILLIPS, GEORGE, JR. - -	243	30th Jan. 1862	Improvements in the distillation and rectification of alcohols or spirits.
PHILLIPS, JOSEPH SCOTT -	1136	19th April 1862	A new method and apparatus for the propulsion of vessels through the water.
PHILLIPS, THOMAS - - -	1052	11th April 1862	Improved apparatus applicable to steam cultivation.
PHILP, JOHN - - - -	341	10th Feb. 1862	An improvement in propellers for propelling ships, boats and other vessels in water.
PHILP, RICHARD - - -	341	10th Feb. 1862	An improvement in propellers for propelling ships, boats and other vessels in water.
PIATTI, THOMAS - - -	1273	30th April 1862	Improvements in the propulsion of ships and other vessels and in the means and apparatus employed for this purpose.
PICARD, MAURICE - - -	2191	2nd Aug. 1862	Manufacture of iron and steel.
PICKARD, JOHN - - -	1154	21st April 1862	Improvements in furnaces for the prevention or consumption of smoke.
PICKIN, ROBERT - - -	465	21st Feb. 1862	Improvements in the manufacture of carriage bodies.
PICKIN, WILLIAM EDWIN -	465	21st Feb. 1862	Improvements in the manufacture of carriage bodies.
PICKSTONE, WILLIAM - -	725	15th March 1862	Improvements in the manufacture of piled fabrics.
PICKSTONE, WILLIAM - -	1513	19th May 1862	An improved fabric in the nature of a cord or corduroy.
PIDDINGTON, JOHN - - -	502	25th Feb. 1862	An improved machine for shelling or husking all kinds of grain. (Communicated by Melchior Nolden.)
PIDDINGTON, JOHN - - -	503	25th Feb. 1862	Improved condensing apparatus adapted for high pressure steam-engines especially locomotive engines. (Communicated by William Winter.)
PIEPER, CHARLES - - -	3421	23rd Dec. 1862	A new improved governor for steam-engines, turbines, water wheels and other machinery with valvular arrangements, to regulate the speed of the same.
PIERCE, WILLIAM PICKET -	2492	10th Sept. 1862	Machinery used in the manufacture of files. (Patented by George Tomlinson Bougfield.)
PIERCE, WILLIAM PICKET -	2494	10th Sept. 1862	Machinery for cutting files. (Patented by George Tomlinson Bougfield.)
PIGGOTT, GEORGE - - -	2930	30th Oct. 1862	New or improved machinery for punching, shearing and rivetting sheets or plates of iron and other metals and alloys.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PILGRIM, THOMAS - - -	2889	27th Oct. 1862	An improvement in locks, bolts, latches and other fastenings.
PILKINGTON, CHARLES - -	53	8th Jan. 1862	Skates.
PILKINGTON, THOMAS - -	53	8th Jan. 1862	Skates.
PILKINGTON, WOODFORD -	3283	8th Dec. 1862	Means or apparatus for obtaining and applying motive-power for propelling or other purposes. (Patented by John Leggett Budden.)
PIM, BEDFORD CLAPPERTON [TREVELYAN.	343	10th Feb. 1862	Improvements in uniting iron plates and in uniting and fixing armour plates on ships and other structures.
PINAIRE, AUCUSTE - - -	2989	3rd Nov. 1862	Improvements in castors and in the manufacture of the same. (Patented by William Clark.)
PIRET, JEAN BAPTISTE GA- [BRIEL MARIE FRÉDÉRIC.	647	10th March 1862	Lubricating-apparatus.
PIRET, JEAN BAPTISTE GA- [BRIEL MARIE FRÉDÉRIC.	2784	15th Oct. 1862	Lubricating-apparatus.
PITKIN, JAMES - - -	312	6th Feb. 1862	An improvement in aneroid barometers.
PITOT - MILLOT, FRÉDÉRIC [THIERRY.	747	18th March 1862	The application to the manufacture of paper pulps of a vegetable product not hitherto used for that purpose. (Patented by Marc Antoine François Mennois.)
PLACE, JOSEPH - - -	2981	4th Nov. 1862	Looms for weaving.
PLACET, PAUL EMILE - -	2892	27th Oct. 1862	An improved process of engraving.
PLASSAN, PIERRE - - -	2011	12th July 1862	An improved orthopedic apparatus for straightening the human frame.
PLATT, ANSON, M.D. - -	985	7th April 1862	Improvements in lamps especially designed for burning hydro-carbon oils. (Patented by George Haseltine.)
PLATT, JOHN - - -	625	8th March 1862	Improvements in machinery or apparatus for cleaning cotton from seeds.
PLATT, JOHN - - -	884	29th March 1862	Carding-engines.
PLATT, JOHN - - -	918	1st April 1862	Mules for spinning and doubling.
PLATT, JOHN - - -	920	1st April 1862	Improvements in machinery or apparatus used for applying motive-power derived from bullocks, horses or other animals.
PLATT, JOHN - - -	1031	10th April 1862	Carding-engines.
PLATT, JOHN - - -	1086	15th April 1862	Looms for weaving.
PLATT, JOHN - - -	1087	15th April 1862	Improvements in machinery or apparatus for cleaning wool and other hairs of animals from burrs and other foreign matters.
PLATT, JOHN - - -	2447	4th Sept. 1862	Improvements applicable to the burning of bricks, tiles and other articles of earthenware.
PLATT, JOHN - - -	2450	4th Sept. 1862	Preparation of clay for the manufacture of bricks, tiles and other articles which may be made of such material.
PLATT, JOHN - - -	3409	20th Dec. 1862	Improvements in scutchers or beaters of cotton machinery, applicable also to other machinery in which shafts are caused to revolve at high velocities.
PLATT, JOHN - - -	3449	24th Dec. 1862	Machinery or apparatus for disintegrating or pulverizing artificial manures, chemical salts and other substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PLEVINS, CHARLES HENRY -	2185	1st Aug. 1862	Improvements in the construction of colliery waggons, tubs or corves, and in apparatus for tipping or discharging the same.
POCHIN, HENRY DAVIS - -	35	4th Jan. 1862	Manufacture of rosin soap or size.
POCHIN, HENRY DAVIS - -	1884	27th June 1862	An improved condensing apparatus.
POISOT, JEAN BAPTISTE - -	3239	2nd Dec. 1862	Improvements in the construction of knobs or handles of door locks, and in the mode of connecting same with the sliding bolts thereof for advancing and drawing back said bolts. (Patented by Benjamin Browne.)
POLGLASE, JAMES - - -	1334	5th May 1862	Improvements in the manufacture of safety fuses for mining and other purposes.
POLKO, ADOLPHUS HENRY -	2406	30th Aug. 1862	Improvements in the manufacture of woven fabrics and in apparatus employed therein. (Patented by Edward Thomas Hughes.)
POLLAK, ANTHONY - - -	2826	20th Oct. 1862	Apparatus for boiling liquids and cooking or preparing food, applicable also as a night light. (Patented by John Henry Johnson.)
POLLOCK, JOHN - - -	549	28th Feb. 1862	Apparatus for protecting trousers from mud.
POLS, JOHN ANTHONY - -	1727	10th June 1862	An improved method of refining oils.
POMEROY, JULIUS - - -	679	12th March 1862	Manufacture of cartridges. (Patented by William Edward Newton.)
POMIER, ELIACIN EDOUARD, [M.D.]	339	10th Feb. 1862	Improved apparatus for the administration of vapour baths. (Patented by Marc Antoine François Mençons.)
PONCEAU, AMÉDÉE CONSTANT	1076	14th April 1862	An improved hobby horse. (Patented by Richard Archibald Brooman.)
PONCINS, The Marquis EMMA- [NUEL DE.]	2614	25th Sept. 1862	An improved steam cultivator. (Patented by Frederick Tolhausen.)
PONSONBY, HENRY - - -	1844	23rd June 1862	Improvements in top sail sheet bits or bolts.
PONTI, CARLO - - -	1988	10th July 1862	An improved apparatus for viewing photographic pictures, and the preparation of photographic pictures to be used in such apparatus. (Patented by Joseph Ponti.)
PONTI, JOSEPH - - -	1988	10th July 1862	An improved apparatus for viewing photographic pictures, and the preparation of photographic pictures to be used in such apparatus. (Communicated by Carlo Ponti.)
PONTIFEX, CHARLES - - -	2594	23rd Sept. 1862	Means or apparatus for removing or expressing beer from yeast or from hops.
PONTIFEX, CHARLES, jr. - -	263	31st Jan. 1862	Apparatus for cooling or heating fluids or liquids.
PONTIFEX, EDMUND ALFRED -	2405	29th Aug. 1862	Improvements in steam traps or apparatus for facilitating the escape of condensed steam.
PONTIFEX, HENRY SALTMARSH	1974	9th July 1862	Improvements in apparatus for distributing water applicable to cleansing casks or other vessels or for other purposes.
POOLEY, HENRY, jr. - - -	903	31st March 1862	Improvements in the construction of weighing-machines and weigh-bridges.
POPE, JOHN BUCKINGHAM -	1419	12th May 1862	Improvements in apparatus for lowering and loading coals, minerals or other substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
POPE, WILLIAM - - -	2782	15th Oct. 1862	Coating the sides of ships, batteries, forts or other places with defensive armour plates.
POPP, JOHANN GEORG - -	2627	26th Sept. 1862	A new or improved purifying and preservative lotion for the mouth. (Patented by Charles Denton Abel.)
PORTER, CHARLES TALBOT -	1450	14th May 1862	Steam-engine indicators. (Communicated by Charles Richards.)
PORTER, WILLIAM - - -	1925	2nd July 1862	Manufacture of targets.
POSEN, EDWARD - - -	2232	9th Aug. 1862	An improved fastening for purses, pocket books, needle books, ladies' companions, instrument cases and other similar articles. (Patented by John James Henry Gebhardt.)
POSENER, ADOLPHE - - -	2606	24th Sept. 1862	Manufacture of india-rubber and other tobacco pouches or purses.
POSENER, DAVID - - -	2606	24th Sept. 1862	Manufacture of india-rubber and other tobacco pouches or purses.
POTENZA, PASQUALE - - -	2783	15th Oct. 1862	The extraction, preparation and spinning of the silky fibre contained in the bark of mulberry trees, and the manufacture of the same into textile fabrics.
POTTER, ARTHUR - - -	2619	25th Sept. 1862	Electro-magnetic engines.
POTTER, ELAM - - -	679	12th March 1862	Manufacture of cartridges. (Patented by William Edward Newton.)
POTTER, HENRY TATEM - -	968	4th April 1862	An improvement in projectiles for ordnance. (Patented by William Edward Newton.)
POTTER, JOHN JENNINGS -	2384	27th Aug. 1862	Upright pianofortes.
POTTS, ANDREW - - -	563	1st March 1862	Improvements in machinery or apparatus for scutching and refining flax, hemp and other vegetable substances.
POTTS, FERDINAND - - -	1661	2nd June 1862	Certain means of producing designs in iron, and in the application of the same or designs formed in like manner of other metals to the manufacturing and ornamenting of bedsteads and other metal articles of furniture.
POULAIN, LOUIS LEONARD -	1866	7th May 1862	An improved box and apparatus for containing and igniting matches. (Patented by Richard Archibald Brooman.)
POULLIER, ADOLPHE AL- [PHONSE.	1003	8th April 1862	Improvements in balling cotton and thread. (Patented by John Lawson.)
POURPOINT, EDMOND - - -	1916	1st July 1862	An improved wool washing-machine.
POWELL, CHARLES - - -	3144	22nd Nov. 1862	Watches and other time-keepers.
PRADEL, FRANÇOIS - - -	491	24th Feb. 1862	Improvements in apparatus for feeding or supplying steam-boilers with water. (Patented by William Clark.)
PRADEL, PIERRE - - -	2912	29th Oct. 1862	Apparatus for ascertaining and recording the speed and distance travelled by vehicles, the flow and quantity of water and other analogous purposes. (Patented by William Clark.)
PRATT, ALFRED - - -	2063	19th July 1862	Self-capping fire-arms.
PRECHT, EDWARD - - -	3362	18th Dec. 1862	Making and packing friction matches.
PREECE, WILLIAM HENRY -	77	10th Jan. 1862	Improved apparatus for signalling upon railways.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PRENTISS, ELIJAH FREEMAN -	1915	1st July 1862	Improvements in the construction of omnibuses and other four wheeled vehicles.
PRENTISS, ELIJAH FREEMAN -	2170	31st July 1862	Improvements in obtaining products from rock oil, coal, coal tar and other like mineral substances, in a more or less pure and deodorized state and in the apparatus to be used therefor, and which is also applicable to distillation in general.
PRENTISS, ELIJAH FREEMAN -	3353	16th Dec. 1862	Improvements in the distillation and treatment of petroleum and other like oils to obtain products therefrom and in the apparatus to be used therefor, parts of which can be applied for distilling other liquids.
PRESTON, FREDERICK PHILIP	1687	4th June 1862	Permanent way of railways.
PRICE, ASTLEY PASTON - -	1883	8th May 1862	Improvements in straps or bands for securing articles, parcels or luggage.
PRICE, ASTLEY PASTON - -	3312	10th Dec. 1862	Manufacture or production of blue colours. (<i>Communicated by Augustus Eisenlohr.</i>)
PRICE, JAMES - - -	1181	23rd April 1862	Improvements in spikes for railways and other purposes, and in the mode of manufacturing and securing the same.
PRICE, WILLIAM KIRBY -	969	4th April 1862	An improvement or improvements in gas cooking ranges.
PRIEGER, FERDINAND CARL -	451	20th Feb. 1862	Improvements in the manufacture of manganese and in the combinations of manganese with other metals. (<i>Patented by Emil Moritz Stockr.</i>)
PRIEGER, OSCAR EUGEN -	451	20th Feb. 1862	Improvements in the manufacture of manganese and in the combinations of manganese with other metals. (<i>Patented by Emil Moritz Stockr.</i>)
PRIESTLEY, ABHAHAM - -	2202	5th Aug. 1862	Improvements in arrangements or apparatus applicable to locomotive railway engines and carriages for distributing sand upon the rails, to give adhesion to the driving and break wheels of such engines and carriages.
PRINCE, ALEXANDER - -	1278	30th April 1862	A new composition for casting to represent marble. (<i>Communicated by Johann Philipp Weimar.</i>)
PRINCE, ALEXANDER - -	2584	20th Sept. 1862	Improvements in steam-boiler and other furnaces and in apparatus for feeding the same. (<i>Communicated by Eugène Langen.</i>)
PRINCE, ALEXANDER - -	2654	30th Sept. 1862	Manufacture of varnish, printing ink, paint and printing colors. (<i>Communicated by David Steinert.</i>)
FRINGLE, ARCHIBALD - -	1791	17th June 1862	Locks.
PRITCHETT, ROBERT TAYLOR -	454	20th Feb. 1862	Targets or butts.
PROVEN, JOHN - - -	2324	19th Aug. 1862	Improvements in mechanism and arrangements for supplying lubricating matter to the cylinders of steam-engines and to the bearings and other surfaces of mechanism.
PRUD'HOMME, FRANÇOIS FERDINAND.	2785	15th Oct. 1862	Machinery or apparatus for raising water.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PRUSSING, ERNST - - -	2457	5th Sept. 1862	Lamps. (Patented by William Edward Newton.)
PRUVOST-BAUCHARD, JULES [CÉSAR.]	2635	29th Sept. 1862	A twice transversal kneading-trough.
PUDDEFOOT, MICHAEL - - -	2639	29th Sept. 1862	Apparatus for tilling land.
PUDNEY, SAMUEL - - -	2462	6th Sept. 1862	Apparatus to be used in the manufacture of sulphuric acid.
PULVÉ, LOUIS ALEXANDRE -	232	29th Jan. 1862	Fireproof iron chests and strong boxes.
PUTNAM, SILAS SAFFORD -	1168	22nd April 1862	Certain improvements in machines for forging horse shoe nails and other articles.

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QUALTER, JOHN - - -	940	3rd April 1862	Certain improvements in metallic pistons.
QUANT, HENRY EBENEZER -	426	18th Feb. 1862	Improvements in the method of and apparatus for securing the ends of steel or other materials used for crinolines.
QUANTIN, PIERRE - - -	1389	9th May 1862	Improvements in metallic cross sleepers for railways. (Patented by Leopold D'Aubréville.)
QUENOT, LOUIS PIERRE - -	551	28th Feb. 1862	Manufacture of hats and bonnets. (Patented by Richard Archibald Brooman.)
QUINARD, ALEXANDRE - -	701	14th March 1862	A machine for manufacturing horse shoe nails.
QUIQUANDON, JEAN BAPTISTE [ANDRÉ.]	580	3rd March 1862	Improvements in jacquard machines and in the pattern cards to be employed therein.

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RABIET, PIERRE LOUIS - -	3198	29th Nov. 1862	Construction of clocks or timekeepers. (Patented by William Edward Gedge.)
RADI, LAURENT - - -	1752	12th June 1862	An improved mode of producing indestructible inscriptions and ornamental surfaces in gold and other precious metals. (Patented by Antoine Salviati.)
RADLOFF, HENRY MARTIN -	2534	15th Sept. 1862	Vessels for filtering oils.
RAFAEL, RAFAEL - - -	2224	8th Aug. 1862	Repeating fire-arms. (Patented by Richard Archibald Brooman.)
RAGON, ADOLPHE ERNEST -	562	1st March 1862	Electric alarms for telegraphic purposes. (Communicated by Pierre Jules Emile Vinay.)

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RAGON, ADOLPHE ERNEST -	1641	31st May 1862	Electro-magnetic machines or apparatus.
RAGON, ADOLPHE ERNEST -	2233	9th Aug. 1862	Improvements in the mode of and apparatus for treating bituminous and carbonaceous substances for the purpose of obtaining the various products volatile, liquid and solid which they contain, and also in the treatment and application of such products.
RAGON, ADOLPHE ERNEST -	2234	9th Aug. 1862	Manufacture of gas and coke.
RAHLES, FERDINAND -	2707	7th Oct. 1862	An improved safety envelope.
RAHLES, FERDINAND -	3086	17th Nov. 1862	Improvements in envelopes with the view to affording better security thereby.
RAILTON, JOHN -	1479	16th May 1862	Warping machines.
RAILTON, THOMAS -	1479	16th May 1862	Warping machines.
RAIMBAULT, HUBERT -	1909	30th June 1862	Looms for weaving. (Patented by William Edward Gedge.)
RAINIER, PETER -	2478	9th Sept. 1862	Watches, chronometers and other time-keepers.
RAINS, RUPERT -	1093	15th April 1862	Improvements in apparatus for freezing, cooling and churning. (Communicated by Georges Toselli.)
RALPH, ROWLAND WESTBY -	2218	7th Aug. 1862	Certain improvements in or applicable to reaping-machines.
RAMSAY, CHARLES -	2088	21st July 1862	An improved military cloak.
RAMSAY, PATRICK -	1843	23rd June 1862	Improvements in cylindrical or circular brushes or rollers for various manufacturing machines.
RAMSAY, THOMAS -	81	11th Jan. 1862	Improvements in the manufacture of coke.
RAMSBOTTOM, JOHN -	2252	12th Aug. 1862	Machinery or apparatus for measuring and registering the flow of water and other fluids.
RAMSBOTTOM, JOHN -	3372	17th Dec. 1862	Machinery or apparatus for measuring and registering the flow of water and other fluids.
RAMSDEN, JAMES, jr. -	1510	19th May 1862	Machinery or apparatus for mashing malt.
RAMSEY, GEORGE -	1578	26th May 1862	Machinery for digging or cultivating land. (Patented by Joseph Ellicott Holmes.)
RANCUREL, JEAN JEROME -	2839	21st Oct. 1862	An improved machine for raising, lowering, removing and carrying buildings, monuments and ships or vessels. (Patented by Frederick Tolhausen.)
RAND, DANIEL CURTIS -	2180	1st Aug. 1862	Apparatus for drying grain, gunpowder and other granular substances. (Patented by George Haseltine.)
RANKINE, WILLIAM JOHN [MACQUORN.]	3123	21st Nov. 1862	Improvements in boilers and valvular mechanism for steam-engines.
RANSFORD, HENRY -	2798	16th Oct. 1862	Building ships and other vessels.
RANSOM, EDWIN -	2172	31st July 1862	Mounting millstones.
RANSOM, JOSHUA -	2172	31st July 1862	Mounting millstones.
RANSOME, JAMES ALLEN -	1809	28th May 1862	Improvements in the manufacture of and in fastening railway chairs with wood trenails.
RANSOME, JAMES EDWARD -	1355	6th May 1862	Harrows.
RANSOME, ROBERT CHARLES -	897	31st March 1862	Improvements in thrashing and other machinery where corn or grain is required to be raised from one level to another.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RANSON, GEORGE - - -	3164	25th Nov. 1862	Apparatus for preparing clay for brick making and other purposes.
RAPHAEL, JAMES - - -	3092	18th Nov. 1862	Improvements in umbrella, parasol, sun-shade and walking sticks.
RASCHETTE, WLADIMER -	1380	8th May 1862	Smelting-furnaces. (Patented by Peter Tate.)
RATCLIFFE, THOMAS - -	2717	8th Oct. 1862	Certain improvements in looms for weaving.
RATLIFF, JOHN CLEOPHAS -	547	28th Feb. 1862	Improvements in the covers or bindings for books and blotting cases.
RAVAUT, CHARLES AUGUSTE -	527	26th Feb. 1862	Improvements in the clasps or fastenings of bracelets, neck chains and other articles of jewellery. (Patented by William Clark.)
RAWBONE, WILLIAM GEORGE	2530	15th Sept. 1862	Improvements in gun barrels and in machinery to be employed in effecting the said improvements, and in tools and machinery for producing inscriptions, ornaments and devices upon gun barrels, lock plates and other metallic parts of small arms, and for producing inscriptions upon saws and articles of cutlery generally.
RAWLINS, JAMES HYNDFORD -	157	21st Jan. 1862	Improvements in machinery used in the manufacture of paper. (Communicated by Oliver Woodworth.)
RAWSON, HENRY - - -	2104	24th July 1862	Machinery for combing wool and other fibres
RAY, JAMES MILLS - - -	1257	29th April 1862	Steam-engines. (Patented by David Monroe Childs.)
RAY, JAMES MILLS - - -	1258	29th April 1862	Reaping and mowing machines. (Patented by David Monroe Childs.)
RAY, JAMES MILLS - - -	1259	29th April 1862	Improvements in the means of changing a rotary into a reciprocating and a reciprocating into a rotary movement in machinery. (Patented by David Monroe Childs.)
RAYMENT, JOHN SAUNDERS -	2268	13th Aug. 1862	Improvements in apparatus for generating steam and for regulating its flow, part of which improvements are applicable also to other purposes.
RAYWOOD, JOHN - - -	2615	25th Sept. 1862	Certain improvements in the construction of gas apparatus for the prevention of fraud and for economising the consumption of gas.
READ, ARCHIBALD - - -	162	21st Jan. 1862	Boots and shoes.
REBOUR, GUSTAVE - - -	937	3rd April 1862	A permanent autographic log serving to measure and if needed to retrace graphically the swiftmess and sailing of a ship, the rapidity of streams, and the propelling of rising and ebbing tides.
RECORDON, EUGENE - - -	926	2nd April 1862	Improvements in memorandum, pocket and other books, and in pencil and pen holders to be used therewith. (Patented by Richard Archibald Brooman.)
REDDICK, JAMES - - -	1238	26th April 1862	Improvements in the manufacture of hollow glass ware. (Patented by Alfred Vincent Newton.)
REDGATE, HERBERT - - -	2111	25th July 1862	Machinery or apparatus for the manufacture of fabrics on bobbin net or twist lace machines.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
REDGATE, JAMES - - -	2111	25th July 1862	Machinery or apparatus for the manufacture of fabrics on bobbin net or twist lace machines.
REDGATE, WILLIAM - -	2472	8th Sept. 1862	Means or apparatus for the manufacture of lace fabrics.
REDSTONE, ALBERT ELLIS -	1257	29th April 1862	Steam-engines. (Patented by David Monroe Childs.)
REDSTONE, ALBERT ELLIS -	1258	29th April 1862	Reaping and mowing machines. (Patented by David Monroe Childs.)
REDSTONE, ALBERT ELLIS -	1259	29th April 1862	Improvements in the means of changing a rotary into a reciprocating and a reciprocating into a rotary movement in machinery. (Patented by David Monroe Childs.)
REDSTONE, ALBERT ELLIS -	1837	21st June 1862	Construction of boilers of steam-engines. (Patented by John Hooper Redstone.)
REDSTONE, JOHN HOOPER -	1257	29th April 1862	Steam-engines. (Patented by David Monroe Childs.)
REDSTONE, JOHN HOOPER -	1258	29th April 1862	Reaping and mowing machines. (Patented by David Monroe Childs.)
REDSTONE, JOHN HOOPER -	1259	29th April 1862	Improvements in the means of changing a rotary into a reciprocating and a reciprocating into a rotary movement in machinery. (Patented by David Monroe Childs.)
REDSTONE, JOHN HOOPER -	1837	21st June 1862	Construction of boilers of steam-engines. (Partly communicated by Albert Ellis Redstone.)
REDWOOD, THEOPHILUS -	2373	27th Aug. 1862	Manufacture of salts of ammonia and other products from the ammoniacal liquors of gas works and animal charcoal works, and in the still or apparatus to be used in such manufacture.
RÉE, HARRY - - -	2858	23rd Oct. 1862	Apparatus for exercising the human body.
REED, CHARLES - - -	1217	25th April 1862	A new method of treating the sorghum saccharatum or holcus saccharatus in order to obtain saccharine liquor and pulp therefrom.
REED, JOHN - - -	722	15th March 1862	Purifying coal. (Patented by John Avery.)
REEDER, JOSEPH - - -	2102	24th July 1862	Breech-loading fire-arms. (Patented by John Horton.)
REES, CHARLES - - -	2286	14th Aug. 1862	Manufacture of waterclosets.
REES, GEORGE - - -	519	26th Feb. 1862	Improvements in the construction of marine sub-ways.
REID, CHRISTIAN JOHN -	2768	14th Oct. 1862	Manufacture of cases for watches and other pocket time-keepers.
REID, DAVID - - -	2768	14th Oct. 1862	Manufacture of cases for watches and other pocket time-keepers.
REMIÈRE, HENRI AMABLE -	2794	16th Oct. 1862	An improved horse collar.
RÉMOND, ALFRED HENRY -	3062	13th Nov. 1862	Preserving provisions. (Patented by George Davies.)
RÉMOND, PIERRE - - -	573	3rd March 1862	Double rein bridle bits.
RENDEL, GEORGE WIGHTWICK	3054	13th Nov. 1862	An improved method of strengthening and hardening cannon made wholly or partially of carbonized iron or steel, or the barrels or other parts thereof.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RENDEL, GEORGE WIGHTWICK	3055	13th Nov. 1862	An improved method of strengthening armour plates made of carbonized iron or steel.
RENISON, THOMAS - - -	403	15th Feb. 1862	Waterclosets.
RENTON, AMHERST HAWKER	820	25th March 1862	Apparatus for steering ships.
RENWICK, EDWARD SABINE -	36	4th Jan. 1862	Certain new and useful improvements in machinery for propelling water craft. (Patented by George Tomlinson Bousfield.)
REQUA, JOSEPHUS - - -	3469	29th Dec. 1862	An improved portable battery.
REQUIER, JEAN JOSEPH - -	1780	16th June 1862	Construction of presses for extracting liquids from various substances. (Patented by George Henry Birkbeck.)
RESTELL, RICHARD - - -	616	7th March 1862	Improvements in apparatuses for connecting and disconnecting carriages and engines on railways, as also signal lines between guard and driver.
REUTER, EDWARD - - -	2982	4th Nov. 1862	Dyeing. (Patented by Peter William Reuter.)
REUTER, EDWARD - - -	3221	1st Dec. 1862	The preparation of a new compound to be used for dyeing and printing purposes. (Patented by Peter William Reuter.)
REUTER, PETER WILLIAM -	2982	4th Nov. 1862	Dyeing. (Communicated by Edward Reuter.)
REUTER, PETER WILLIAM -	3221	1st Dec. 1862	The preparation of a new compound to be used for dyeing and printing purposes. (Communicated by Edward Reuter.)
REVELL, JOSEPH - - -	543	27th Feb. 1862	Oil cans.
REVELL, JOSEPH - - -	610	7th March 1862	Improvements in securing the rails of railways and tramways to the chairs.
RÉVILION, HENRI ALEXANDRE	3036	11th Nov. 1862	Construction of crinoline skirts. (Patented by George Davies.)
REVV, JULIAN JOHN - - -	1090	15th April 1862	Improvements in the manufacture of explosive compounds. (Patented by Thomas Wood Gray.)
REYNOLDS, OSBORNE - - -	1035	10th April 1862	Building ships and other vessels.
REYNOLDS, SAMUEL GODFREY	565	1st March 1862	Certain improvements in power spading machines.
REYNOLDS, WILLIAM FRANCIS	1983	10th July 1862	An improved watch pendant.
RHOADS, WILLIAM - - -	2092	22nd July 1862	An improved machine for wringing clothing and other woven fabrics. (Patented by John Jay Haley.)
RHODES, BENJAMIN - - -	11	1st Jan. 1862	Improvements in forming or making straight and bent pipes and bends for pipes, and also vessels of various shapes, and in coating and protecting objects and articles of various forms, and in the apparatus to be employed therein.
RHODES, BENJAMIN - - -	1142	19th April 1862	Improvements in the machinery for and in the method of making as also in the materials to be employed in the manufacture of cylinders, tubes and other vessels, from paper and other materials or fabrics.
RHODES, JAMES - - -	1863	25th June 1862	Improvements in vapourizing lamps for burning petroleum or coal oil. (Patented by George Haseltine.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RHODES, JAMES - - -	3427	23rd Dec. 1862	Improvements in the mode of and apparatus for converting petroleum or coal oil into gas for lighting and heating, the said improvements being especially applicable to lamps and stoves. (Patented by George Haseltine.)
RHODES, JOHN ADAMS - -	144	20th Jan. 1862	Certain improvements in the method of sizing paper, yarns and woven fabrics, and in machinery or apparatus connected therewith. (Patented by William Boaler.)
RHODES, JOSEPH - - -	1975	9th July 1862	Rag machines. (Communicated by John Schafroth.)
RICH, ISAAC - - - -	1464	15th May 1862	Machinery for spinning. (Patented by George Henry Sanborn.)
RICHARD, JOHN - - -	1349	6th May 1862	Improvements in the manufacture of printing types, spaces and quadrats.
RICHARD, JOSEPH ELISÉE -	2681	4th Oct. 1862	Improved means or apparatus by the use of which pierced or perforated cocoons may be spun. (Patented by William Edward Gedge.)
RICHARD, WALTER - - -	1349	6th May 1862	Improvements in the manufacture of printing types, spaces and quadrats.
RICHARDS, CHARLES - - -	1450	14th May 1862	Steam-engine indicators. (Patented by George Talbot Porter.)
RICHARDS, GEORGE - - -	1208	25th April 1862	Improvements in ordnance and the manner of loading such with the charges and projectiles suitable thereto.
RICHARDS, GEORGE - - -	3091	17th Nov. 1862	Improvements in the constructions of ordnance and fire-arms, and in the projectiles to be used therewith.
RICHARDS, WALTER DAVIS -	1923	1st July 1862	Improved machinery for washing wool. (Patented by William Edward Newton.)
RICHARDS, WALTER DAVIS -	2749	11th Oct. 1862	Sewing-machines. (Patented by Alfred Vincent Newton.)
RICHARDS, WESTLEY - - -	2506	11th Sept. 1862	Fire-arms and cartridges.
RICHARDS, WESTLEY - - -	3478	30th Dec. 1862	Improvements in cannon and other fire-arms and in apparatus connected therewith.
RICHARDS, WILLIAM ANTIL -	949	3rd April 1862	Improvements in the manufacture of bags and in fastenings and locks for bags, parts of the invention being also applicable to purses, cigar cases, reticules and other similar articles.
RICHARDS, WILLIAM ANTIL -	2467	6th Sept. 1862	An improved fastening for purses, pocket books, bags, cigar cases, books, wearing-apparel, jewellery and other articles.
RICHARDSON, JAMES COPE -	2204	6th Aug. 1862	Cleaning cotton waste.
RICHARDSON, THOMAS - -	459	21st Feb. 1862	Improved apparatus for transshipping and discharging grain and other substances, and for weighing, screening and fanning such grain and substances during such transshipment and discharge. (Patented by James Spence.)
RICHARDSON, THOMAS - - -	2366	26th Aug. 1862	Improvements in the manufacture or treatment of articles of steel and in the apparatus employed therein.
RICHARDSON, THOMAS - - -	2895	27th Oct. 1862	Manufacture of sulphate of soda.
RICHARDSON, THOMAS - - -	3257	4th Dec. 1862	Manufacture of warp fabrics.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RICHARDSON, WILLIAM - -	625	8th March 1862	Improvements in machinery or apparatus for cleaning cotton from seeds.
RICHARDSON, WILLIAM - -	684	29th March 1862	Carding-engines.
RICHARDSON, WILLIAM - -	918	1st April 1862	Mules for spinning and doubling.
RICHARDSON, WILLIAM - -	920	1st April 1862	Improvements in machinery or apparatus used for applying motive-power derived from bullocks, horses or other animals.
RICHARDSON, WILLIAM - -	1031	10th April 1862	Carding-engines.
RICHARDSON, WILLIAM - -	1087	15th April 1862	Improvements in machinery or apparatus for cleaning wool and other hairs of animals from burrs and other foreign matters.
RICHARDSON, WILLIAM - -	2447	4th Sept. 1862	Improvements applicable to the burning of bricks, tiles and other articles of earthenware.
RICHARDSON, WILLIAM - -	2450	4th Sept. 1862	Preparation of clay for the manufacture of bricks, tiles and other articles which may be made of such material.
RICHARDSON, WILLIAM - -	3409	20th Dec. 1862	Improvements in scutchers or beaters of cotton machinery, applicable also to other machinery in which shafts are caused to revolve at high velocities.
RICHARDSON, WILLIAM - -	3449	24th Dec. 1862	Machinery or apparatus for disintegrating or pulverizing artificial manures, chemical salts and other substances.
RICHMOND, JOHN - - -	1348	6th May 1862	Looms for weaving.
RICKER, SAMUEL - - -	3297	9th Dec. 1862	Manufacture of gunpowder. (Patented by Marshall Franklin Benton.)
RICKETSON, BARTON - - -	2216	7th Aug. 1862	Improvements in the rig, spars and sails of ships and other vessels. (Patented by William Clark.)
RIDDELL, JOSEPH HADLEY -	3462	29th Dec. 1862	Improvements in cast metal or other pipes or tubes for conveying gases, fluids or vapours, and in the mode of connecting such pipes or tubes.
RIDDELL, JOSEPH HADLEY -	3463	29th Dec. 1862	Stoves.
RIDDER, GUSTAVE JOSEPH NICOLAS DE.	225	28th Jan. 1862	Improvements in railway carriages for the conveyance of travellers and goods.
RIDDLE, WILLIAM - - -	1876	8th May 1862	Improvements in hydraulic and other presses and apparatus used therewith adapted to packing cotton and other fibrous substances.
RIDEAL, SAMUEL - - -	1132	17th April 1862	Railway-break apparatus.
RIDER, HENRY - - -	2185	1st Aug. 1862	Improvements in the construction of colliery waggons, tubs or corves, and in apparatus for tipping or discharging the same.
RIDER, JOSEPH - - -	2368	26th Aug. 1862	Improvements in the construction of fencing posts or standards to be used either for straining or otherwise sustaining fences, the said improvements being also applicable to all kinds of gate posts, telegraph poles, signal posts, or other upright standards or pillars.
RIDGE, JOHN JAMES, M. D. -	2891	27th Oct. 1862	Improvements in treating certain farinaceous substances applicable to infants' or invalids' food, and in apparatus to be employed therein.
RIDGWAY, JOHN - - -	2979	4th Nov. 1862	Hanging, arranging and operating ordnance. (Patented by John Henry Johnson.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RIDLEY, ROBERT - - -	2027	14th July 1862	Machinery and apparatus for ventilating mines and other places.
RIDSDALE, JOSEPH - -	115	15th Jan. 1862	Improvements in preparing sheet lead for covering floors, stairs and other like purposes.
RIESBECK, FRANCIS - -	280	1st Feb. 1862	Improvements in locks or fastenings for bags, portemonnaies and other like articles having metal frames.
RIGBY, JOHN - - -	1966	8th July 1862	Improvements in breech-loading guns and in extracting cartridges from such guns, and also in wind sights for fire-arms.
RIGBY, JOHN MACVICAR -	3265	5th Dec. 1862	Presses for pressing cotton or other fibrous materials.
RIGG, ARTHUR, junior - -	2493	10th Sept. 1862	Improvements in apparatus for carrying and tipping coal and other minerals, and in steam breaks used therewith and with other machinery.
RIGOLLOT, FRANÇOIS - -	1045	11th April 1862	Improvements in machinery or apparatus for manufacturing riveting pegs for boots and shoes, and other pins or pegs.
RIMMER, JOHN - - -	3076	15th Nov. 1862	Hansom cabs.
RINDAC, FRANÇOIS DE - -	2415	1st Sept. 1862	Apparatus for washing the felts of paper-making machines. (Patented by William Edward Gedge.)
RIOU, OLIVIER - - -	663	11th March 1862	Apparatus for effecting submarine operations. (Patented by William Clark.)
RIPLEY, ABRAHAM - - -	178	23rd Jan. 1862	Improvements in the construction of pistons.
RIPLEY, ABRAHAM - - -	1849	24th June 1862	Construction of damper governors or regulators.
RIPLEY, ABRAHAM - - -	2907	29th Oct. 1862	Improvements in the construction of pistons for steam-engines, which improvements are also applicable to air and liquid pumps.
RIPPINGILLE, EDWARD ALEX- [ANDER.	246	30th Jan. 1862	Improvements in engines worked by steam or other fluid, and in pumps.
RITCHIE, EDWARD SAMUEL -	2345	22nd Aug. 1862	Mariner's compass.
RITCHIE, EDWARD SAMUEL -	3061	13th Nov. 1862	An invention having reference to the mariner's compass.
RITCHIE, GEORGE - - -	2491	10th Sept. 1862	Improvements in extracting the liquid portion of yeast, spent hops or other similar matters, and in the apparatus employed therein.
RITNER, MICHAEL - - -	2186	1st Aug. 1862	Improvements in projectiles for ordnance and small arms, and in the wads or sabôts to be used therewith. (Patented by William Edward Newton.)
RIVES, MATHURIN - - -	1307	3rd May 1862	Wheels. (Patented by Henri Jukel.)
RIVETT, JOSEPH CEDRIC -	1134	17th April 1862	Improvements in machinery or apparatus for preparing cotton and other fibrous materials for spinning.
RIVRET-JUSTIN, JEAN LOUIS -	18	2nd Jan. 1862	Improved apparatus for roasting coffee. (Patented by William Edward Gedge.)
ROBARDET, CLAUDE - - -	1446	13th May 1862	Louvre blinds or shutters. (Patented by Richard Archibald Brooman.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROBE, JOHN - - -	366	12th Feb. 1862	Improvements in ventilation and in apparatus employed for that purpose.
ROBBINS, EDWARD YOUNG -	2656	1st Oct. 1862	Means for and mode of warming and ventilating buildings. (Patented by George Haseltine.)
ROBBINS, RICHARD CHESTER -	2677	25th Oct. 1862	Construction of the joints of cast iron gas and water mains and other pipes. (Patented by William Clark.)
ROBERTS, ALEXANDER - -	201	25th Jan. 1862	Apparatus for ploughing or cultivating land.
ROBERTS, DR. JOHN - -	3390	18th Dec. 1862	An apparatus for the inhalation of medicinal powders or vapours, for the treatment of diseases of the throat and lungs. (Patented by John Savory.)
ROBERTS, FREDERICK - -	201	25th Jan. 1862	Apparatus for ploughing or cultivating land.
ROBERTS, ISAAC - - -	164	22nd Jan. 1862	Improvements in combined hydraulic motive-power engines and meters.
ROBERTS, JAMES - - -	52	8th Jan. 1862	Improvements in the manufacture of gun barrels and wrought iron tubing.
ROBERTS, JULIUS - - -	2412	1st Sept. 1862	Manufacture of flanged wrought iron or steel plates and of wrought iron beams and frames of a trough shaped section, and in the apparatus employed for that purpose.
ROBERTS, MARTYN JOHN -	2200	5th Aug. 1862	Means or apparatus for spinning and preparing wool and other fibrous substances.
ROBERTS, MARTYN JOHN -	3345	15th Dec. 1862	Means and apparatus for preparing and spinning wool, cotton and other fibrous substances.
ROBERTS, RICHARD PERCY -	1213	25th April 1862	Improvements in the preparation of paper for copying letters and other documents, and in the preparation of copying ink.
ROBERTS, ROBERT MARTIN -	776	20th March 1862	Obtaining and applying motive-power.
ROBERTS, SAMUEL - -	3069	14th Nov. 1862	Frames for containing stoppered bottles and jars.
ROBERTS, THOMAS - - -	139	18th Jan. 1862	Improvements in the manufacture of gun-powder.
ROBERTS, WILLIAM - - -	1551	22nd May 1862	Cocks or valves for steam or other fluids.
ROBERTS, WILLIAM - - -	2430	2nd Sept. 1862	Apparatus for regulating the amount of water discharged by a pump, chiefly applicable for regulating the amount of water thrown by a steam fire-engine, or for regulating the amount of water fed to a steam-boiler.
ROBERTSHAW, LUTHER - -	3158	25th Nov. 1862	Manufacture of textile fabrics technically called "Moreens."
ROBERTSHAW, THOMAS - -	3158	25th Nov. 1862	Manufacture of textile fabrics technically called "Moreens."
ROBERTSON, ALEXANDER -	1182	23rd April 1862	Improvements in apparatus for distributing and projecting fluids either for surgical, sanatory or domestic purposes.
ROBERTSON, JOHN CAMPBELL	3206	29th Nov. 1862	An improved tap or cock.
ROBERTSON, PATRICK - -	564	1st March 1862	Improvements in treating yeast and in the manufacture of ammoniacal salts and a substitute for animal charcoal.
ROBERTSON, PETER - - -	3113	25th July 1862	Producing brushing or frictional surfaces.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROBERTSON, ROBERT ADAM -	2170	31st July 1862	Improvements in obtaining products from rock oil, coal, coal tar and other like mineral substances in a more or less pure and deodorized state, and in the apparatus to be used therefor and which is also applicable to distillation in general.
ROBEY, JAMES - - -	724	15th March 1862	Improvements in manufacturing and refining sugar and in apparatus employed therein.
ROBINSON, EDWARD - -	1408	10th May 1862	Improvements in piece-dyed woollen fabrics or fabrics composed of wool in combination with other fibrous substances.
ROBINSON, JOHN - - -	1768	13th June 1862	Machinery or apparatus for sawing wood.
ROBINSON, JOHN - - -	3256	4th Dec. 1862	Construction of ships and vessels.
ROBINSON, JONAS - - -	3229	2nd Dec. 1862	Looms for weaving.
ROBINSON, JOSEPH - - -	2800	16th Oct. 1862	Improvements in protecting the submerged portions of iron ships, and in ventilating the cabins and cabin decks in iron ships.
ROBINSON, JOSEPH - - -	3433	24th Dec. 1862	Machinery for opening and cleaning cotton and other fibrous materials.
ROBINSON, ROBERT - - -	1695	5th June 1862	Improvements in fire-escapes, parts of which improvements are also applicable to other purposes.
ROBINSON, WILLIAM - - -	2309	16th Aug. 1862	Racks for window-blinds.
ROBOTHAM, SAMUEL - - -	2990	5th Nov. 1862	Carriage bodies.
ROBOTHAM, THOMAS JOHN -	212	27th Jan. 1862	Improvements in purifying slip, glaze and other potters' materials.
ROBOTHAM, THOMAS JOHN -	2670	3rd Oct. 1862	Apparatus for purifying "glaze," "slip" or other potters' materials.
ROBOTTOM, HENRY - - -	243	30th Jan. 1862	Watches and pocket chronometers.
ROBSON, JAMES, junior - -	3471	30th Dec. 1862	Ornamental fillings for domestic stove grates.
ROCHE, RICHARD - - -	1082	15th April 1862	An improvement in gun carriages.
ROCHOW, JULIUS FERDINAND	3393	18th Dec. 1862	Improved apparatus for transmitting power. (Patented by Alfred Vincent Newton.)
ROCK, JAMES, jr. - - -	186	24th Jan. 1862	Common road carriages.
ROCLIFF, JOHN - - -	2121	26th July 1862	Moulding.
RODGETT, SAMUEL - - -	1006	9th April 1862	Certain improvements in power looms for weaving.
ROE, RICHARD - - -	1682	4th June 1862	Improvements in planes for tonguing, working sash fillisters or other similar purposes.
ROECKNER, CARL HEINRICH -	1659	2nd June 1862	An improved method of constructing coffer dams and other similar structures for excluding or keeping back the flow of water and preventing inundations.
ROECKNER, CARL HEINRICH -	2359	23rd Aug. 1862	Improvements in syphons for discharging or drawing off large bodies of water, and in the mode of charging, fixing and constructing same whereby they are rendered permanently self-acting.
ROECKNER, CARL HEINRICH -	3243	4th Dec. 1862	An improved method of constructing coffer dams and other similar structures for excluding or keeping back the flow of water and preventing inundations, and apparatus for lowering or raising weights.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROGERS, GEORGE - - -	176	23rd Jan. 1862	Improved mechanical arrangements for letting-off water or other liquids from butts, vessels or cisterns.
ROGERSON, JOHN - - -	1599	28th May 1862	An iron floating dock to be used for the purpose of building and repairing ships, steamers, barges and floating vessels of all descriptions.
ROJARE, LOUIS CHARLES [EDOUARD, junior.]	2116	25th July 1862	Improvements in rafts or structures applicable for the ordinary purposes of marine and inland navigation, as also for saving life in cases of shipwreck or otherwise. (Patented by William Clark.)
ROJARE, LOUIS FRANÇOIS -	1418	12th May 1862	Smoke consuming fire-grates. (Patented by William Clark.)
ROJARE, LOUIS FRANÇOIS, [senior.]	2116	25th July 1862	Improvements in rafts or structures applicable for the ordinary purposes of marine and inland navigation, as also for saving life in cases of shipwreck or otherwise. (Patented by William Clark.)
ROMAINE, ROBERT - - -	129	17th Jan. 1862	Improvements in apparatus to be used in cultivating land by steam power, and in steam-boilers used for agricultural and traction purposes.
ROMER, JOSEPH - - -	3219	1st Dec. 1862	Manufacture of bullion wire and metallic fine drawn wire.
ROMILLY, HENRY LOUIS FELIX [WORMS DE.]	1443	13th May 1862	Improvements in apparatus for generating motion in fluids, applicable for raising and forcing water, propelling and otherwise in the distribution of motive-power. (Patented by William Clark.)
RONALD, ROBERT ALEXANDER	3321	11th Dec. 1862	Improvements in printing textile and felted fabrics, and in the machinery or apparatus to be used therein.
RONALD, WILLIAM HENRY -	1410	10th May 1862	Apparatus for signalling and indicating the position of shots in rifle practice.
RONKETTI, JOSEPH ANTHONY	756	18th March 1862	Improvements in meteorological instruments and thermometers.
ROPES, WILLIAM HOOPER -	174	23rd Jan. 1862	Improvements in machinery or apparatus for cleaning coffee, rice or any seed or grain having an outer hull and inner pellicle. (Communicated by William Maxwell Greene.)
ROSCOE, JAMES - - -	1337	5th May 1862	An improved lubricator for steam-engines.
ROSE, WILLIAM - - -	1146	19th April 1862	Improvements in the manufacture of tubes more especially applicable to the barrels of fire-arms and ordnance.
ROSECRANS, GENERAL WIL- [LIAM.]	985	7th April 1862	Improvements in lamps especially designed for burning hydro-carbon oils. (Patented by George Haseltine.)
ROSS, CHARLES - - -	1253	29th April 1862	Improvements in grinding-stones or surfaces for grinding grain and other substances. (Patented by John Ross.)
ROSS, JOHN - - -	1253	29th April 1862	Improvements in grinding-stones or surfaces for grinding grain and other substances. (Communicated by Charles Ross.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROSS, WILLIAM HENRY - -	471	22nd Feb. 1862	Manufacture of sugar. (Communicated by Edward Beames.)
ROSSEL, AUGUSTE - - -	2038	16th July 1862	Apparatus for winding up watches and other time-keepers. (Patented by Louis Rudolph Bodmer.)
ROTHERA, WILLIAM - -	2487	10th Sept. 1862	Machinery or apparatus for rivetting boiler plates, tanks and similar articles.
ROUART, STANISLAS HENRI -	2475	8th Sept. 1862	Railway signals. (Patented by George Davies.)
ROUGE, JEAN PIERRE VICTOR [LE.	1172	22nd April 1862	Apparatus for propelling and manœuvring ships. (Patented by John Henry Johnson.)
ROUGE, JEAN PIERRE VICTOR [LE.	3344	13th Dec. 1862	Fitting or applying propellers to ships and other vessels. (Patented by Michael Henry.)
ROULLIER, CHARLES MARIEN	291	4th Feb. 1862	Improvements in the manufacture of straps, bands, chains and other like articles.
ROULLIER, CHARLES MARIEN	812	24th March 1862	Flat cables or chains.
ROUNSEVELL, WILLIAM - -	1334	5th May 1862	Improvements in the manufacture of safety fuses for mining and other purposes.
ROUSSE, JEAN BAPTISTE -	1065	14th April 1862	A telegraphic dial printing apparatus. (Patented by Frederick Tolhausen.)
ROUSSEAU, ALEM - - -	1518	20th May 1862	Improvements in certain descriptions of breech-loading fire-arms. (Patented by Marc Antoine François Mençons.)
ROUSSEL, JOSEPH EUSÈBE -	3329	12th Dec. 1862	Hand and power looms for weaving. (Communicated by Victor Armand Thaurin.)
ROWAN, JOHN MARTIN - -	1	1st Jan. 1862	Improvements in the manufacture of railway wheels and in apparatus to be used therein.
ROWAN, JOHN MARTIN - -	88	13th Jan. 1862	Improvements in the manufacture of iron and steel.
ROWAN, JOHN MARTIN - -	125	17th Jan. 1862	Improvements in the construction of steam hammers.
ROWAN, JOHN MARTIN - -	1102	16th April 1862	Improvements in manufacturing articles of cast steel.
ROWE, WILLIAM - - -	1700	5th June 1862	An improved forge and bellows.
ROWELL, JOSEPH - - -	2516	12th Sept. 1862	Improvements in pillars and apparatus for straining wire.
ROWLETT, WILLIAM TERTIUS	3180	27th Nov. 1862	Machinery used in producing knit or looped fabrics.
ROWLEY, JOHN - - -	1788	17th June 1862	Improvements in the manufacture of compound fabrics and in the arrangement of apparatus for manufacturing same.
RUBINO, JOSEPH - - -	3406	20th Dec. 1862	Construction of locks, catches or fastenings for purses, bags or other receptacles. (Communicated by Gustav Luttringhaus.)
RUCK, WILLIAM DENNY -	1195	24th April 1862	Manufacture of grease from coal tar, coal oil, creosote or dead oil.
RUE, THOMAS DE LA - -	2235	9th Aug. 1862	Manufacture of pigments and writing inks.
RUOLZ, HENRI CATHERINE [CAMILLE DE.	1127	17th April 1862	Improvements in the manufacture and production of certain alloys containing cadmium. (Patented by Charles Denton Abel.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RUQUOIS, CHARLES LOUIS -	1159	21st April 1862	Improvements in jackets or protectors for covering metal and other surfaces to prevent loss of heat by radiation. (Patented by Richard Archibald Brooman.)
RUSHTON, HENRY - - -	1806	19th June 1862	Improvements in plaiting machines to plait cotton yarns, silk or like fibrous materials.
RUSHTON, HENRY - - -	1949	5th July 1862	Covering crinoline steels.
RUSSELL, ALEXANDER JAMES	665	12th March 1862	Improvements in the arrangement of the electric conductors for submarine telegraphs. (Communicated by Francis Bensa and Windham Charles James Anstruther.)
RUSSELL, GEORGE - - -	2853	23rd Oct. 1862	Improvements in obtaining fresh water by evaporation and in apparatus therefor.
RUSSELL, GEORGE - - -	3386	18th Dec. 1862	Cranes.
RUSSELL, JONATHAN - - -	417	15th Feb. 1862	Improvements in the method of raising sunken, submerged or stranded vessels.
RUSSELL, JOSEPH, junior -	1964	8th July 1862	An improved arrangement and method of indication to be employed in railway and other time-tables.
RUSSELL, ROBERT - - -	313	6th Feb. 1862	Stove grates and kitchen ranges.
RUSSELL, SAMUEL - - -	1944	4th July 1862	Stereoscopes.
RUSSELL, SAMUEL - - -	3429	23rd Dec. 1862	Stereoscopes.
RUST, CHARLES FREDERICK [WILLIAM.]	1976	9th July 1862	Improvements in concertinas and other wind instruments of that class. (Communicated by Ferdinand Glier.)
RYCX, ALPHONSE, jr. - - -	1286	30th April 1862	Improved machinery or apparatus for carding cotton and other fibrous substances of a similar character. (Patented by William Thomas Loy.)
RYDER, WILLIAM - - -	954	4th April 1862	Improvements in the construction of machines for forging metals.
RYDILL, GEORGE - - -	1692	5th June 1862	An improved hydraulic pump or engine for raising liquids and obtaining motive-power, also applicable for the ventilation of mines and other useful purposes.
RYO-CATTEAU, JOSEPH MARIE	1719	9th June 1862	Machinery for twisting wool, cotton, flax, silk and other fibrous threads.

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SABATIER, EUGENE - - -	1624	30th May 1862	Improved machinery and process for making pulp for the manufacture of paper and other purposes.
SABATIER-BLOT, JEAN BAP- [TISTE.]	3298	9th Dec. 1862	Photographic apparatus. (Patented by William Clark.)
SAFFORD, JOSEPH ANDRESS -	1517	19th May 1862	Improved machinery for splitting leather. (Patented by Alfred Vincent Newton.)
SAGAR, THOMAS - - -	2121	26th July 1862	Moulding.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ST. SPÉS, PIERRE - - -	2010	12th July 1862	Manufacture of hats. (Patented by William Edward Gedge.)
SALETTE, JEAN - - -	770	19th March 1862	Improvements in apparatuses for drawing in and paying out chain cables applicable to windlasses and capstans. (Patented by Richard Archibald Brooman.)
SALINÉ, JULIE - - -	2363	26th Aug. 1862	Stays or corsets. (Patented by William Edward Gedge.)
SALISBURY, SILAS COVELL -	1206	25th April 1862	Improvements in the construction of sewing-machines.
SALVIATI, ANTOINE - -	1752	12th June 1862	An improved mode of producing indestructible inscriptions and ornamental surfaces in gold and other precious metals. (Communicated by Laurent Radi.)
SALZMANN, AUGUSTE - -	9	1st Jan. 1862	Improvements in supporting and propelling vessels. (Patented by Richard Archibald Brooman.)
SAMBIDGE, HENRY WILLIAM -	1414	10th May 1862	Improvements in sliding chandeliers, gasaliers and other pendant lamps.
SAMPSON, EDWARD BARNARD -	1002	8th April 1862	Improvements in apparatus for supplying oil or other liquid to wool as the same is fed into carding-engines.
SAMSON, GEORGE ROBERT -	1245	29th April 1862	Improvements in valves or cylinders for wind musical instruments.
SAMSON, WILLIAM HENRY -	3456	27th Dec. 1862	Improvements in certain machinery for cultivating land by steam power.
SAMUEL, DAVID ARTHUR -	2454	5th Sept. 1862	Apparatus for steering vessels.
SAMUEL, PIERRE AUGUSTIN -	250	30th Jan. 1862	Mechanical wrenches. (Patented by William Clark.)
SAMUELSON, ALEXANDER -	203	25th Jan. 1862	Improvements in hydraulic presses and in the mode of working the same.
SAMUELSON, ALEXANDER -	373	12th Feb. 1862	Building ships and vessels.
SAMUELSON, ALEXANDER -	1562	23rd May 1862	Improvements in the working of hydrostatic presses and in the apparatus employed therein.
SAMUELSON, BERNARD - -	773	20th March 1862	Chain harrows.
SANBORN, GEORGE HENRY -	705	14th March 1862	Gas regulators. (Communicated by Jeremiah Henry Norton.)
SANBORN, GEORGE HENRY -	1464	15th May 1862	Machinery for spinning. (Communicated by Isaac Rich.)
SANBORN, GEORGE HENRY -	1589	27th May 1862	Revolving breech-loading fire-arms. (Communicated by George Gates.)
SANBORN, GEORGE HENRY -	1686	4th June 1862	Refrigerators. (Communicated by Thomas Gates.)
SANBORN, GEORGE HENRY -	3024	10th Nov. 1862	An improved wringing machine.
SANDERS, GEORGE - - -	2263	12th Aug. 1862	Domestic fire-escapes.
SANDERSON, CHARLES - -	2041	16th July 1862	Manufacture of crinoline or crinoline steel.
SANDERSON, CHARLES - -	3266	8th Dec. 1862	An improved mode of manufacturing bands for driving machinery, lifting weights and other analogous purposes.
SANDERSON, GEORGE GRANT -	3135	21st Nov. 1862	Improvements in armour for fortifications and floating and other batteries.
SANDERSON, HENRY - - -	3328	12th Dec. 1862	Manufacture of table and other knives and forks.
SANDERSON, JAMES - - -	2586	22nd Sept. 1862	Writing desks and cases.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SANDERSON, PETER - -	2021	14th July 1862	Improvements in the manufacture of woven fabrics and in the machinery or apparatus employed therein.
SANDERSON, ROBERT - -	2021	14th July 1862	Improvements in the manufacture of woven fabrics and in the machinery or apparatus employed therein.
SANDERSON, ROBERT, jr. -	623	8th March 1862	Finishing woven fabrics.
SANDERSON, WILLIAM ALEX- [ANDER.	623	8th March 1862	Finishing woven fabrics.
SANDILANDS, JAMES HENRY [CARR.	1387	9th May 1862	Improvements in the construction of piano-fortes.
SANFORD, GELSTON - -	1666	2nd June 1862	Improved machinery for breaking and cleaning flax, and other like fibre yielding plants. (Patented by Alfred Vincent Newton.)
SANFORD, GELSTON - -	2728	9th Oct. 1862	Improved machinery for breaking and cleaning flax, hemp and other like fibrous substances. (Patented by Alfred Vincent Newton.)
SANGER, JOHN - - -	256	31st Jan. 1862	An improvement or improvements in breech-loading small arms.
SARDY, JOHN BEAUJOUR -	1436	13th May 1862	Improvements in the construction of ships of war and other vessels.
SARGENT, JOSEPH FORSTER -	1990	10th July 1862	A new and useful invention for making nails and driving such nails into the sole of a boot or shoe. (Patented by Elmer Townsend.)
SARRAZIN, HUGUS - - -	93	13th Jan. 1862	Improved means or apparatus for gaining or acquiring motive-power. (Patented by William Edward Gedge.)
SARTRE - - - - -	2808	17th Oct. 1862	Prevention or removal of incrustation in or from steam generators. (Patented by John Henry Johnson.)
SARTRE, BERNARD - -	196	25th Jan. 1862	Improvements in the prevention or removal of incrustation in or from steam generators and in the apparatus employed therein. (Patented by John Henry Johnson.)
SAUGRIN, LOUIS FRANÇOIS -	322	7th Feb. 1862	Improvements in stereoscopic albums, books and cases. (Patented by Richard Archibald Brooman.)
SAUL, DAN - - - -	3130	21st Nov. 1862	Improvements in the manufacture of crino-line skirts and in the apparatus employed therein.
SAULT, THOMAS - - -	2633	27th Sept. 1862	Improvements in machinery for covering wire with india-rubber and gutta-percha and similar gums and compounds thereof, and for manufacturing tubes and other articles of such gums and compounds. (Patented by Hiram Hutchinson.)
SAUNDERS, HENRY - - -	1604	23rd May 1862	Improvements in the manufacture of venetian blinds and other window blinds, and in apparatus for raising and lowering the same.
SAUNDERS, JONES - - -	2484	10th Sept. 1862	Lamps.
SAUNDERS, JONES - - -	2485	10th Sept. 1862	A new or improved railway break.
SAUNDERS, THOMAS HARRY -	2066	19th July 1862	Manufacture of paper.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SAURET, ETIENNE - - -	3417	22nd Dec. 1862	Stoves or apparatus for heating and drying. (Patented by Richard Archibald Brooman.)
SAUVAL, CONSTANT - - -	2814	18th Oct. 1862	Frames for doubling and twisting threads. (Patented by Richard Archibald Brooman.)
SAVAGE, FREDERICK - - -	2572	19th Sept. 1862	Traction engines.
SAVAGE, WILLIAM PEACOCK - -	529	26th Feb. 1862	Fire-arms.
SAVORY, JOHN - - -	3390	18th Dec. 1862	A new or improved apparatus for the inhalation of medicinal powders or vapours for the treatment of diseases of the throat and lungs. (Communicated by Dr. John Roberts.)
SAWYER, JOSEPH - - -	1769	14th June 1862	Improvements in steam-boiler and other furnaces, applicable in part to grates of various kinds.
SAX, ANTOINE JOSEPH - - -	1657	2nd June 1862	Improvements in kettle, big or other drums.
SCATTERGOOD, DANIEL - - -	2971	3rd Nov. 1862	Improvements in circular frames for the manufacture of looped fabrics.
SCEALES, JAFFRAY - - -	965	4th April 1862	Steering ships.
SCHÄFER, FREDERICK - - -	588	4th March 1862	An improvement in travelling bags, portmanteaus and other similar bags and cases.
SCHÄFER, PHILIPP - - -	588	4th March 1862	An improvement in travelling bags, portmanteaus and other similar bags and cases.
SCHÄFFER, BERNHARD AUGUST	833	26th March 1862	Improvements in steam-engines and in apparatus connected therewith. (Patented by James Parker.)
SCHAFROTH, JOHN - - -	1975	9th July 1862	Rag machines. (Patented by Joseph Rhodes.)
SCHATTEN, HERMANN - - -	257	31st Jan. 1862	Improvements in the manufacture or construction of gas meters.
SHELL, JOSEPH - - -	1818	20th June 1862	Improvements in the irons and cutters of planes, and in the method of manufacturing the same. (Patented by John Bedford.)
SCHEMMANN, JOHANN CARL -	2335	21st Aug. 1862	Manufacture of steel.
SCHURWEGHS, PIERRE - - -	262	31st Jan. 1862	Certain improvements in treating fatty and oily matters for obtaining their acidification, and in the apparatus employed therein.
SCHUTZ, EDVARD - - -	1688	4th June 1862	Rotatory engines.
SCHIELE, CHRISTIAN - - -	1309	3rd May 1862	Improvements in machinery or apparatus for cutting or dressing stones, which are also applicable for hammering, crushing or otherwise reducing metals and other materials.
SCHLESSINGER, JOSEPH - - -	3004	6th Nov. 1862	An improved lift and force pump. (Patented by William Edward Gedge.)
SCHLICKEYSEN, CHARLES - -	1322	3rd May 1862	Machinery for moulding bricks, tiles, pipes and turf.
SCHLOSS, JOSEPH - - -	2047	17th July 1862	Pouches.
SCHLUMBERGER, HENRI - - -	287	3rd Feb. 1862	Machinery for spinning. (Patented by William Edward Newton.)
SCHMOLLE, LÉONCE BERNARD	899	31st March 1862	Improvements in the construction of crinolines or steel skirts.
SCHNEBELY, THEODOR - - -	700	13th March 1862	Cleansing and bleaching. (Patented by John Kent.)
SCHNEIDER, FRANÇOIS EUGÈNE	1828	21st June 1862	Construction of breech-loading fire-arms.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SCHNEITER, JEAN DAVID -	845	27th March 1862	An improved method for printing letters, numbers, musical or other characters or signs on maps, plans, sheets of music paper or other similar impressions.
SCHNELL, WILLIAM - -	2277	13th Aug. 1862	Improvements in extracting the sulphur and sulphurous acid from the oxy-sulphuret of calcium which is contained in the residues or waste material obtained in the manufacture of soda. (Communicated by Ludwig Mond.)
SCHOENFELD, JOSEPH - -	2502	11th Sept. 1862	Cigar and cigarette cases. (Patented by William Clark.)
SCHOFIELD, JAMES - -	3013	7th Nov. 1862	Mules for spinning and doubling.
SCHOFIELD, JOSEPH - -	576	3rd March 1862	Looms for weaving.
SCHOFIELD, SILAS - -	2732	10th Oct. 1862	Apparatus for cutting button-holes and other similar purposes.
SCHOFIELD, WILLIAM - -	2732	10th Oct. 1862	Apparatus for cutting button-holes and other similar purposes.
SCHOMBURG, RUDOLPH - -	699	13th March 1862	Purifying illuminating gas.
SCHOMBURG, RUDOLPH - -	3363	16th Dec. 1862	Improvements applicable to all kinds of oils used for illuminating purposes whereby combustion thereof is rendered more perfect, smoke prevented and the purity of the light increased.
SCHOTTLANDER, HENRY -	95	13th Jan. 1862	Improvements in albums for containing photographic and other pictures.
SCHUBERTH, JOHN - -	1225	26th April 1862	An improvement in the manufacture of nails, bolts, rivets, screws, eyes and split keys or pins. (Patented by Dudley Charles Le Souëf.)
SCHULTZ, ADOLF - -	1110	16th April 1862	Improvements in machinery or apparatus for cutting the teeth of wheels, racks or segments. (Patented by John Henry Johnson.)
SCHULTZ, ALEXANDRE - -	2107	24th July 1862	Improvements in printing and dyeing when aniline and analogous coal tar dyes are employed, also in preparing coloring matters. (Patented by William Henry Perkin.)
SCHULTZ, CARL - -	1110	16th April 1862	Improvements in machinery or apparatus for cutting the teeth of wheels, racks or segments. (Patented by John Henry Johnson.)
SCHULTZ, LUDWIG PHILIPP -	1110	16th April 1862	Improvements in machinery or apparatus for cutting the teeth of wheels, racks or segments. (Patented by John Henry Johnson.)
SCHULZE, PAUL - -	2997	5th Nov. 1862	A new process of obtaining printing surfaces, dies and substitutes for photographic negatives. (Patented by Alfred Vincent Newton.)
SCHUYLER, PETER CLOPPER -	2959	1st Nov. 1862	Improved apparatus for drying grain and other substances. (Patented by William Edward Newton.)
SCHWABE, DANIEL - -	2213	7th Aug. 1862	Blast furnaces. (Patented by John Henry Johnson.)
SCHWARTZKOPFF, LOUIS -	1091	15th April 1862	Steam hammers. (Patented by Ferdinand Carl Philippson.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SCHWARZ, DR. HENRY - -	3375	17th Dec. 1862	Improved means for the protection and preservation of lead surfaces exposed to the action of water, and for the protection of such surfaces from decomposition by atmospheric action. (Patented by Fédor De Wyldé.)
SCOLLAY, GEORGE, M.D. -	2957	1st Nov. 1862	Improvements in coffins or burial cases. (Patented by George Haseltine.)
SCOTT, HENRY YOUNG DARRA- [COTT.	720	15th March 1862	Improvements in the manufacture of cement.
SCOTT, ROBERT - - -	718	15th March 1862	Reaping-machines.
SCOTT, THOMAS - - -	85	11th Jan. 1862	Steam-engines.
SCOVILLE, AUGUSTUS JAMES -	1173	22nd April 1862	Pistons for steam-engines. (Patented by George Scoville.)
SCOVILLE, GEORGE - - -	1173	22nd April 1862	Pistons for steam-engines. (Communicated by Augustus James Scoville and Augustus Hervey De Clercq.)
SCOWEN, THOMAS LAYZELL -	1669	3rd June 1862	Indicating time and accent in music.
SCRATTON, The REV. D. GEORGE	924	2nd April 1862	Shades or blinds for windows.
SEAGER, ROBERT - - -	540	27th Feb. 1862	Improvements in the manufacture of boots and shoes and in apparatus employed therein.
SEARLE, THOMAS JOHN - -	3148	24th Nov. 1862	Apparatus for raising and forcing water or other fluids.
SEBILLE, CHARLES FELIX -	1607	28th May 1862	Improvements in the manufacture of tinned lead pipes and in the apparatus employed therein. (Patented by John Henry Johnson.)
SEDLEY, ANGELO JAMES -	591	4th March 1862	Improvements in metallic bedsteads, sofa bedsteads, and folding chairs or seats.
SEELLY, ROBERT BENTON -	3122	20th Nov. 1862	Inkstands.
SÉGOFFIN, CHARLES DENIS -	429	18th Feb. 1862	An improved apparatus for the purpose of viewing photographs on cards.
SEIDAU, WENZEL - - -	1497	16th May 1862	Embossing metal plates. (Patented by Dudley Charles Le Souëf.)
SEILER, FREDERIC - - -	3121	20th Nov. 1862	Improvements in motive-power engines and in apparatus for conveying and distributing motive-power.
SELBY, FRASER - - -	2139	28th July 1862	Surface condensers.
SELBY, FRASER - - -	2480	9th Sept. 1862	Improvements in traction engines and in valves for traction engines where compound engines are used, which latter improvements are applicable to compound engines generally.
SELBY, GEORGE THOMAS -	2037	16th July 1862	Improvements in apparatus for superheating in tubes and tubular articles, and in machinery for the manufacture thereof.
SELLARS, JOHN - - -	3284	8th Dec. 1862	Manufacture of pulp or half stuff used in the manufacture of paper, pasteboard and similar articles.
SELLERS, WILLIAM - - -	2175	31st July 1862	Improved machinery for planing metal. (Patented by Alfred Vincent Newton.)
SELWYN, JASPER HENRY -	2124	26th July 1862	Improvements in apparatus employed in paying out and raising electric telegraph cables.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SEMET, PIERRE LOUIS JOSEPH	2090	22nd July 1862	Improvements in the treatment of the noxious gases or vapours produced in the distillation or purification of tar. (Patented by John Henry Johnson.)
SENGRY, CHARLES - - -	2262	12th Aug. 1862	An improved smoking pipe which may also be adapted as a tube for smoking cigars.
SERBAT, LOUIS - - -	2255	12th Aug. 1862	Certain improvements in lubricating machinery.
SERRET, GEORGES - - -	1520	20th May 1862	Improved processes for the conversion of amylaceous matters into saccharine and other useful products. (Patented by Marc Antoine François Mennons.)
SERRIN, ALEXANDRE FRANÇOIS	326	7th Feb. 1862	An improved portable thrashing and winnowing machine, and apparatus for working same by horse power. (Patented by William Edward Gedge.)
SERVICE, JAMES GOWANS -	180	23rd Jan. 1862	Improvements in machinery or apparatus for cutting and scoring pasteboard and other similar material.
SEYMOUR, JAMES - - -	2115	25th July 1862	Improvements in steering ships and in apparatus for the same.
SEYMOUR, WILLIAM HENRY -	1732	10th June 1862	Reaping and mowing machines. (Patented by John Brouncker Ingle.)
SEZILLE, ALEXANDRE - - -	3286	8th Dec. 1862	Kneading-machines. (Patented by Richard Archibald Brooman.)
SHALER, IRA WELLS - - -	642	10th March 1862	Projectiles. (Patented by William Spence.)
SHAND, JAMES - - -	1734	11th June 1862	Construction of steam-boilers.
SHANKS, ANDREW - - -	2906	29th Oct. 1862	Hydrostatic presses.
SHANKS, JAMES - - -	3081	10th Nov. 1862	Mowing-machines.
SHANKS, JOHN - - -	1139	19th April 1862	Improvements in apparatus for promoting ventilation, also applicable to drying-stoves.
SHARPE, BENJAMIN - - -	1000	8th April 1862	Harrows and rakes.
SHARPE, BENJAMIN - - -	1493	16th May 1862	Improvements in the construction of ships and vessels, and in masts and spars for the same.
SHARPE, EDMUND - - -	3261	5th Dec. 1862	Improvements in the manufacture of earthenware knobs and in fixing them in spindles used with certain kinds of knobs, in securing the metal mounts upon such knobs, and in apparatus to be employed in certain parts of this manufacture.
SHAW, FREDERICK - - -	44	7th Jan. 1862	Apparatus for stopping railway trains.
SHAW, JACK - - -	408	15th Feb. 1862	Felted fabrics.
SHAW, JOHN - - -	1215	25th April 1862	Steam and other power engines and indicators. (Communicated by John Shaw, jr.)
SHAW, JOHN, jr. - - -	1215	25th April 1862	Steam and other power engines and indicators. (Patented by John Shaw, senr.)
SHAW, PETER - - -	324	7th Feb. 1862	Lamps.
SHAW, ROBERT, jr. - - -	572	3rd March 1862	An improvement in fire-arms by a more convenient method of placing the ramrod in position.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SHAW, THOMAS - - -	1549	22nd May 1862	A new or improved method of laying submarine telegraphic cables. (Patented by George Barlow.)
SHAW, THOMAS - - -	2122	26th July 1862	An improved mode of attaching armour plates to ships. (Patented by Alfred Vincent Newton.)
SHAW, THOMAS - - -	3182	27th Nov. 1862	Improvements in the means of generating steam and in the apparatus to be employed therein. (Patented by John Livingston Linton.)
SHEDLOCK, JAMES JOHN -	2741	11th Oct. 1862	Gas meters.
SHELDON, ABRAHAM - -	575	3rd March 1862	An improvement or improvements in smelting furnaces.
SHELDON, JAMES - - -	575	3rd March 1862	An improvement or improvements in smelting furnaces.
SHEPARD, ANNE - - -	2300	15th Aug. 1862	Improvements in obtaining light and in apparatus connected therewith.
SHEPARD, WILLIAM ALBERT -	3012	7th Nov. 1862	Repeating fire-arms. (Patented by Alfred Vincent Newton.)
SHEPHERD, ROBERT - -	1132	17th April 1862	Railway break apparatus.
SHIELD, CLIFTON - - -	2964	3rd Nov. 1862	Manufacture of malleable cast iron.
SHIELD, CLIFTON - - -	2996	5th Nov. 1862	Manufacture of malleable cast iron.
SHIPLEY, JOHN GEORGE -	607	7th March 1862	Bridle-heads, reins and bits.
SHIPMAN, JABEZ - - -	763	19th March 1862	Hardening and tempering wire and crinoline steel.
SHIRT, JOSEPH - - -	2935	4th Nov. 1862	Apparatus for condensing the steam of high pressure steam-engines.
SHORT, HENRY - - -	1796	17th June 1862	Manufacture of blasting powder.
SHORT, JOSEPH - - -	1978	9th July 1862	Washing-machines. (Patented by George Tomlinson Bousfield.)
SHORTREDE, ROBERT - -	314	6th Feb. 1862	Improvements in the construction of ships of war with armour plates.
SHORTREDE, ROBERT - -	1643	31st May 1862	Presses for pressing cotton and other articles.
SHOWELL, JOHN - - -	2773	14th Oct. 1862	Construction of glass roofs and roof lights.
SHOWELL, OWEN JOHNSON -	2773	14th Oct. 1862	Construction of glass roofs and roof lights.
SICKELS, FREDERICK ELS- [WORTH.	1506	17th May 1862	An improved apparatus for steering vessels.
SICKELS, FREDERICK ELS- [WORTH.	2950	31st Oct. 1862	Improvements in the means of steering and manœuvring ships or boats and in the apparatus connected therewith, which apparatus is also applicable for pumping and lifting weights.
SIDEBOTTOM, JOHN - -	595	5th March 1862	Improvements in fire-arms and ordnance and in projectiles.
SIEBE, DANIEL EDWARDS -	762	21st March 1862	Improvements in machinery or apparatus for refrigerating or producing cold, part of which improvements are applicable also to other purposes.
SIEMENS, CHARLES WILLIAM	59	9th Jan. 1862	Improvements in the means and apparatus employed for insulating and protecting telegraph conducting wires and in apparatus for working the same. (Partly communicated by Dr. Werner Siemens.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Sim]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SIEMENS, CHARLES WILLIAM	1540	22nd May 1862	Electric telegraph apparatus. (Partly communicated by Dr. Werner Siemens.)
SIEMENS, CHARLES WILLIAM	2143	28th July 1862	Gas engines.
SIEMENS, DR. WERNER - - -	59	9th Jan. 1862	Improvements in the means and apparatus employed for insulating and protecting telegraph conducting wires and in apparatus for working the same. (Patented by Charles William Siemens.)
SIEMENS, DR. WERNER - - -	1540	22nd May 1862	Electric telegraph apparatus. (Patented by Charles William Siemens.)
SISS, EUGÈNE - - -	1089	15th April 1862	Improvements in ornamenting fabrics and other surfaces. (Patented by William Clark.)
SIEVIER, ROBERT WILLIAM -	1497	17th May 1862	An improvement in rams for naval warfare.
SILBER, ALBERT MARCIUS -	823	25th March 1862	An improved fastening for purses, pocket books, bags and other articles. (Communicated by Johann Georg Klein.)
SILL, RICHARD, junior - -	1698	5th June 1862	An improved method of attaching direction cards, name plates or other cards or plates to trunks, packing cases and other articles.
SILVER, HUGH ADAMS - - -	325	7th Feb. 1862	Improvements in the manufacture of trays, cases and other similar articles and bottles in ebonite, vulcanite or other hard india-rubber.
SILVER, STEPHEN WILLIAM -	3331	12th Dec. 1862	Certain compounds and substances applicable for electric insulation and other purposes.
SILVER, THOMAS - - -	956	4th April 1862	Improvements in governors for regulating the speed of steam and other engines.
SILVESTER, JOHN - - -	255	31st Jan. 1862	Pocket and other spring balances.
SIM, JAMES - - -	555	1st March 1862	Improvements in the construction of gas meters.
SIMLICK, HENRY JOSEPH -	973	5th April 1862	Improvements in the manufacture of vesuvians or cigar lights.
SIMLICK, HENRY JOSEPH -	3238	2nd Dec. 1862	Manufacture of cigar and pipe lights.
SIMMONS, THOMAS - - -	114	15th Jan. 1862	An improved bath combining in itself the advantages of the hot air or Turkish bath with the vapour, slipper, hot and cold water shower bath.
SIMON, SIEGFRIED - - -	2195	5th Aug. 1862	Ornamenting ladies' and children's slippers.
SIMONIN, JOSEPH HENRI -	2720	8th Oct. 1862	Self-inking hand stamps. (Patented by Marc Antoine François Mennons.)
SIMONS, GUSTAVE - - -	2730	9th Oct. 1862	Improvements in the manufacture of plates, rods, axles, tyres and other articles that are required to be partly of iron and partly of steel.
SIMONS, WILLIAM - - -	982	7th April 1862	Improvements in constructing ships or vessels.
SIMPSON, GEORGE - - -	1831	21st June 1862	Machinery for working boring and mining or excavating tools, and mine and other pumps.
SIMPSON, JAMES - - -	1598	28th May 1862	Improvements in machinery or apparatus for cutting or producing "mouldings" upon surfaces of wood or other suitable material.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SIMPSON, JAMES - - -	2550	17th Sept. 1862	An improved composition for coating or covering moulded or other surfaces and in apparatus for applying the same thereto.
SIMPSON, JOSEPH - - -	1678	4th June 1862	Improvements in the construction, arrangement and mode of working hydraulic presses, and in the arrangement of force pumps.
SIMPSON, WILLIAM - - -	1475	15th May 1862	Improvements in treating straw, Spanish grass and other vegetable fibres, in preparing a bleaching agent for vegetable fibres, and in recovering and treating an alkali resulting from the treatment of the said fibres, and in apparatuses employed therein.
SIMPSON, WILLIAM - - -	3019	8th Nov. 1862	Improvements applicable to letter boxes and other like receptacles.
SIMS, REUBEN - - -	2374	27th Aug. 1862	Machinery or apparatus for pulping, stripping or slicing turnips and other vegetable substances.
SINCLAIR, JOHN - - -	2178	1st Aug. 1862	Improved arrangements for ventilating and in part applicable for fumigating.
SINIBALDI, MARIE CELESTE -	2205	6th Aug. 1862	Improvements in the manufacture of chains and in the apparatus employed therein.
SINIBALDI, MARIE CELESTE [DE CASTERAS.	2945	31st Oct. 1862	Improvements in the manufacture of armour plates for ships, fortifications and forts, and in the manufacture of plates to be used in the construction and building of ships and for other purposes, and for attaching copper or other like protective metal to the outside of metal plates for making copper bottoms or bottoms with a similar protection to iron ships.
SINNOCK, WILLIAM - - -	1788	17th June 1862	Improvements in the manufacture of compound fabrics and in the arrangement of apparatus for manufacturing same.
SINNOCK, WILLIAM - - -	3125	21st Nov. 1862	Improvements in the treatment and combination of fibrous and other materials and in the arrangement of apparatus for manufacturing same.
SIROU, JEAN - - - -	2220	8th Aug. 1862	A new medicinal preparation for internal and external application.
SIRY, JEAN BAPTISTE MICHEL [AUGUSTE.	235	29th Jan. 1862	Improvements in the disintegration and bleaching of textile materials for the manufacture of paper. (Patented by William Clark.)
SISSONS, WILLIAM - - -	1468	15th May 1862	Machinery for driving piles by means of steam hammers.
SIVEWRIGHT, JAMES - - -	1442	13th May 1862	Improvements in the manufacture of polished plate glass.
SKELLERN, RICHARD HUME -	460	21st Feb. 1862	An improved self-inking hand stamp or press.
SKINNER, HALCYON - - -	1187	23rd April 1862	Improvements in looms for manufacturing tufted pile fabrics, and in the mode of operating such looms. (Patented by Alfred Vincent Newton.)
SLACK, SAMUEL - - -	758	18th March 1862	Improvements in the manufacture of stockings and other fabrics in circular knitting-machines.

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AND APPLICANTS FOR PATENTS OF INVENTION.

[Smi]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SLATER, JAMES - - -	3073	15th Nov. 1862	Certain improvements in carding-engines.
SLATER, SAMUEL - - -	148	20th Jan. 1862	A new or improved kind of last capable of being adjusted to various sizes and to various shapes of toes. (Patented by John Washington Agnew.)
SLATER, WILLIAM - - -	2451	5th Sept. 1862	Improvements in self-stripping carding-engines for preparing cotton and other fibrous substances or materials.
SLATFORD, CHARLES - - -	1965	8th July 1862	Improvements in trimmings, tufts and other articles for ornamental and decorative purposes.
SLEEPER, JOHNATHAN CHARLES	2261	12th Aug. 1862	Machinery for cutting veneers. (Patented by Augustus Bryant Childs.)
SLEIGH, ADDERLEY WILLCOCKS	3464	29th Dec. 1862	An improved method of rendering or making ships and vessels and floating and shore batteries or ambulant or stationary defences impenetrable to shot and shell, and to other missiles and projectiles and war rams.
SLOAN, THOMAS JAMES - - -	1994	10th July 1862	Braiding-machines. (Patented by John Henry Johnson.)
SLOAN, THOMAS JAMES - - -	2422	1st Sept. 1862	Improvements in the manufacture of braid and in machinery or apparatus employed therein. (Patented by John Henry Johnson.)
SMADJA, JULIEN - - -	716	15th March 1862	Improvements in bustles and crinolines and in materials used in their construction.
SMALLWOOD, WILLIAM [THOMAS.]	1640	31st May 1862	Water-closets.
SMALPAGE, JOHN HENRY -	2247	11th Aug. 1862	Improvements in the action and arrangement of machines for winding cops, and in apparatus for holding and receiving such cops when used for warps or sewing thread or other purposes.
SMEDLEY, ABRAHAM - - -	3359	16th Dec. 1862	Machinery or apparatus for the manufacture of textile or looped fabrics on warp lace machines.
SMEDLEY, WILLIAM - - -	3359	16th Dec. 1862	Machinery or apparatus for the manufacture of textile or looped fabrics on warp lace machines.
SMEETON, GEORGE FREDERICK	1571	26th May 1862	Apparatus connected with targets.
SMITH, ALEXANDER ANDERSON [BLACK.]	1881	27th June 1862	Apparatus for steering ships or other vessels.
SMITH, ANDREW - - -	1456	14th May 1862	Balances for weighing letters and other documents.
SMITH, BENJAMIN - - -	183	24th Jan. 1862	New or improved machinery for boring or drilling gun-barrels and tubes and other articles having a cylindrical or prismatic figure, which said machinery may also be applied to other like purposes.
SMITH, CHARLES WILLIAM -	2270	13th Aug. 1862	Looms for weaving.
SMITH, DOCTOR WILLIAM -	2081	22nd July 1862	Certain improvements in power looms for weaving.
SMITH, EDMUND - - -	869	28th March 1862	Wet gas meters.
SMITH, EDWARD BAINES PYE	2616	25th Sept. 1862	An improved machine for reducing or equalizing the length of animal or vegetable fibres.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMITH, EDWARD FISHER -	302	5th Feb. 1862	An improvement or improvements in the manufacture of coke.
SMITH, EDWIN - - -	777	20th March 1862	Improvements in means or apparatus for cutting stone, wood and other material, which improvements are also applicable to modelling in plastic material.
SMITH, EPHRAIM - - -	741	17th March 1862	Watch keys.
SMITH, FREDERICK ST. GEORGE	497	24th Feb. 1862	Improvements in machinery for grinding or reducing quartz, bones, grain and other substances. (Partly communicated by Edward Furber.)
SMITH, GEORGE - - -	345	10th Feb. 1862	Shawls.
SMITH, GEORGE - - -	2582	20th Sept. 1862	A new or improved method of tinting by lithographic printing photographic portraits and back grounds, and embossing the same.
SMITH, GEORGE - - -	3044	12th Nov. 1862	Certain improvements in obtaining colouring matter.
SMITH, GEORGE HAND - -	2380	27th Aug. 1862	An improved method of producing light for the various purposes of artificial illumination. (Patented by William Edward Newton.)
SMITH, GEORGE HEDGEcombe	1236	26th April 1862	Improvements in the manufacture of crinoline or elastic hoops for dresses.
SMITH, GEORGE HEDGcombe	2902	28th Oct. 1862	Manufacture of crinoline or elastic hoops for dresses.
SMITH, HENRY - - -	913	1st April 1862	Apparatus used when casting iron or other metal.
SMITH, JAMES - - -	60	9th Jan. 1862	Cooking-stoves or ranges.
SMITH, JAMES SUTCLIFFE -	3436	24th Dec. 1862	Certain improvements in looms for weaving.
SMITH, JAMES SUTCLIFFE -	3484	31st Dec. 1862	Certain improvements in looms for weaving.
SMITH, JOHN - - -	2268	13th Aug. 1862	Improvements in apparatus for generating steam and for regulating its flow, part of which improvements are applicable also to other purposes.
SMITH, JOHN - - -	2568	19th Sept. 1862	An improved combination of machinery or apparatus for doubling, measuring and plaiting woven fabrics.
SMITH, JOHN BURNS - -	2512	12th Sept. 1862	Certain improvements in washing and mangling machines, applicable in part to steam dyeing and to bleaching.
SMITH, JOHN LANCELOT -	1803	19th June 1862	A universal fire alarm with discharging apparatus.
SMITH, JOHN, senr. - -	531	26th Feb. 1862	Drying wheat and other grain.
SMITH, JOHN, sr. - - -	1459	14th May 1862	Thrashing-machines.
SMITH, JOHN THOMAS - -	589	4th March 1862	An improved sight for fire-arms, applicable also as an apparatus for measuring angles.
SMITH, JOSEPH - - -	210	27th Jan. 1862	Improvements in the construction of covered rollers used in machinery for preparing, roving, spinning, twisting and doubling fibrous materials.
SMITH, JOSEPH - - -	2704	7th Oct. 1862	An improved screw linch-pin for carriages and agricultural implements.
SMITH, MARK - - -	2486	10th Sept. 1862	Machinery for raising the nap on woven fabrics. (Communicated by Carl Martin May.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMITH, NARCISSUS - - -	877	29th March 1862	An improved fire-engine.
SMITH, RICHARD - - -	881	11th March 1862	Telegraph posts.
SMITH, RICHARD - - -	881	29th March 1862	Roller blind apparatus.
SMITH, ROBERT - - -	1839	31st May 1862	Certain improvements in machinery for spooling and balling sewing threads, silk yarn and other like fibrous materials.
SMITH, SAMUEL - - -	1168	22nd April 1862	Burglary alarms or indicators.
SMITH, SPENCER - - -	468	21st Feb. 1862	Improvements in electro-magnetic engines for obtaining and applying motive-power.
SMITH, SPENCER - - -	2761	14th Oct. 1862	Improvements in kettles, saucepans and boilers for domestic and other purposes.
SMITH, STEPHEN - - -	215	28th Jan. 1862	Improvements in the manufacture of cord and twine from mill-spun yarns.
SMITH, STEPHEN WILLIAM -	2402	29th Aug. 1862	Improvements in vehicles to be propelled by the rider.
SMITH, THOMAS - - -	215	28th Jan. 1862	Improvements in the manufacture of cord and twine from mill-spun yarns.
SMITH, THOMAS MOSDELL -	803	22nd March 1862	Improvements in the manufacture of candles.
SMITH, TITUS - - -	981	7th April 1862	Improvements in machinery for cutting and shaping screw bolts and other articles.
SMITH, WALTER - - -	204	27th Jan. 1862	Improvements in the manufacture of colours for dyeing and printing.
SMITH, WILLIAM - - -	230	29th Jan. 1862	An improved flyer.
SMITH, WILLIAM - - -	269	1st Feb. 1862	Improvements in machinery for the manufacture of bricks, tiles or other articles of a similar nature or character.
SMITH, WILLIAM - - -	536	27th Feb. 1862	Improvements in the method of making cigarettes and in the apparatus and materials to be employed therein. (Communicated by M. Lemaire-Daimé.)
SMITH, WILLIAM - - -	1724	10th June 1862	Photography. (Communicated by Monsieur Henri Lissagaray.)
SMITH, WILLIAM - - -	1755	13th June 1862	Apparatus for cutting or dividing soap.
SMITH, WILLIAM - - -	2397	29th Aug. 1862	Construction of furnaces. (Communicated by Joseph Philippe Toussaint Bordone.)
SMITH, WILLIAM - - -	2568	19th Sept. 1862	An improved combination of machinery or apparatus for doubling, measuring and plaiting woven fabrics.
SMITH, WILLIAM BICKFORD -	1288	1st May 1862	Improvements in the method of and apparatus for preventing the injurious effects occasioned by smoke, sulphur, and the deleterious gases which escape from stacks, chimneys, calcining houses, chemical and other furnaces.
SMITH, WILLIAM FORD - -	401	14th Feb. 1862	Improvements in and applicable to lathes for turning and cutting screws.
SMITH, WILLIAM FORD - -	859	27th March 1862	Improvements in and applicable to lathes and machines for turning and for cutting screws.
SMITH, WILLIAM JOSEPH -	3267	5th Dec. 1862	Manufacture of collars, cuffs and wristbands.
SMITH, WILLOUGHBY - -	413	15th Feb. 1862	Telegraph cables.
SMITH, EUGÈNE - - -	3233	2nd Dec. 1862	Forming the permanent ways of railways. (Patented by George Tomlinson Bousfield.)

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ALPHABETICAL INDEX OF PATENTEEES

[Sou]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SNELL, EDWARD - - -	1683	4th June 1862	Surface condensers and superheaters.
SNIDER, JACOB, junior - -	1838	21st June 1862	Construction of breech-loading fire-arms.
SNIDER, JACOB, junior - -	2461	6th Sept. 1862	A new and useful method of increasing the durability of and for preserving cloths and other like fabrics used for sails, tarpaulings, tents and other coverings, also all kinds of ropes and cables and telegraph wires, also all woods, metals, and other materials used in buildings or constructions on land or on water, and all objects exposed to the action of acids, alkalies, gases, fire, fresh or salt water, atmospheric or other like destructive influences, by the application of graphite.
SNIDER, JACOB, jun. - -	2766	14th Oct. 1862	Construction of "Hansom cabs" and other similar vehicles.
SNOWDON, THOMAS - -	1312	3rd May 1862	Improvements in the manufacture of steel tyres, hoops and cylinders, and in furnaces employed therein and applicable to the melting of steel generally. (Communicated by Pierre Mourrier.)
SOAR, MARCUS - - -	91	13th Jan. 1862	An improved knocker to be attached to doors, shutters or other parts of premises to which the same may be applicable, and applicable also for the reception of letters and other documents.
SOAR, THOMAS - - -	91	13th Jan. 1862	An improved knocker to be attached to doors, shutters or other parts of premises to which the same may be applicable, and applicable also for the reception of letters and other documents.
SOCIÉTÉ COIGNET PÈRE ET [FILS ET COMPAGNIE.]	807	22nd March 1862	Kilns, ovens and furnaces. (Patented by Michael Henry.)
SOCIÉTÉ GINGEMBRE ET [DAMIEN.]	649	10th March 1862	An improvement in preparing hooks and hooks and eyes for sale or consumption. (Patented by Michael Henry.)
SOCIETY CORDIER AND COM- [PANY.]	1051	11th April 1862	Fire-arms. (Patented by John Henry Johnson.)
SOCIN, CHRISTOPH - -	3046	12th Nov. 1862	Looms for weaving ribbons.
SOMERVELL, JOHN - -	597	5th March 1862	Certain improvements in the manufacture of boots and shoes.
SOMERVELL, ROBERT MILLER	597	5th March 1862	Certain improvements in the manufacture of boots and shoes.
SONSTADT, EDWARD - -	3021	8th Nov. 1862	Manufacture of the metal magnesium.
SORTAIS, THEODORE AUGUSTE [MARIE.]	2442	3rd Sept. 1862	Apparatus for transmitting electric telegraph messages and signals. (Patented by Richard Archibald Brooman.)
SOUDRY, RAYMOND - -	1919	1st July 1862	Improvements in processes for the utilization of certain refuse products resulting from the manufacture of iron, such processes being applicable to the treatment of other metallic or mineral substances. (Patented by George Henry Birkbeck.)
SOUËF, DUDLEY CHARLES LE	1225	26th April 1862	An improvement in the manufacture of nails, bolts, rivets, screws, eyes and split keys or pins. (Communicated by John Schubert.)
SOUËF, DUDLEY CHARLES LE -	1497	16th May 1862	Embossing metal plates. (Communicated by Wenzel Seiden.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SOULARY, JOSÉPHIN - -	733	17th March 1862	Improved apparatus for drawing. (Patented by George Davies.)
SOURBÉ, PIERRE LÉON AU- [GUSTE THÉOPHILE.	1338	5th May 1862	An improved method of maturing spirits and wines.
SOURDEVAL, ALFRED LALOUËL [DE.	349	10th Feb. 1862	Improvements in refining cast-iron, wrought and other malleable iron, and in the cementation of iron. (Patented by William Clark.)
SOURDEVAL, ALFRED LALOUËL [DE.	936	2nd April 1862	Improvements in the manufacture of carbonic acid. (Patented by William Clark.)
SOUTHEY, ANTHONY GAPPER -	87	13th Jan. 1862	Improvements in the preparation of pulp for paper making.
SOUTHWOOD, WILLIAM - -	1378	8th May 1862	Improvements in machinery for pulverizing ores and extracting metals therefrom, part of which is applicable to breaking stones.
SOUTHWOOD, WILLIAM - -	1447	13th May 1862	Improvements in machinery for manufacturing nails from either hot or cold bars of iron or other metal.
SOUTTER, WILLIAM - -	2293	14th Aug. 1862	Certain apparatus for raising and planishing metals.
SPAGNOLETTI, CHARLES ER- [NESTO.	2297	14th Aug. 1862	Apparatus for signalling trains on railways.
SPARROW, THOMAS DUTTON [TEMPLER.	1580	26th May 1862	An arrangement or arrangements for shading street lights in order to protect or shade the eyes of riders and foot passengers from the dazzling effect of the flames of such lights.
SPEIGHT, GEORGE - - -	1804	19th June 1862	Manufacture of head ornaments.
SPEIGHT, GEORGE - - -	2946	31st Oct. 1862	Manufacture of collars for men's wear.
SPENCE, JAMES - - -	459	21st Feb. 1862	Improved apparatus for transshipping and discharging grain and other substances, and for weighing, screening and fanning such grain and substances during such transshipment and discharge. (Communicated by Thomas Richardson.)
SPENCE, JAMES - - -	2842	22nd Oct. 1862	Improvements in nonconducting compositions for preventing the radiation or transmission of heat or cold, and in coating metallic and other surfaces therewith.
SPENCE, WILLIAM - - -	642	10th March 1862	Projectiles. (Communicated by Ira Wells Shaler.)
SPENCE, WILLIAM - - -	1960	8th July 1862	Telegraphic apparatus. (Communicated by Jean Didier Digney and Bastien Théodore Digney.)
SPENCE, WILLIAM - - -	2130	28th July 1862	Preparation of a red colouring matter. (Communicated by Nicolas Philibert Guinon, Jean Aimé Marnas and François Bonnet.)
SPENCE, WILLIAM - - -	2132	28th July 1862	Preparation of a blue colouring matter. (Communicated by Nicolas Philibert Guinon, Jean Aimé Marnas and François Bonnet.)
SPENCER, FRANCIS - - -	953	4th April 1862	Certain improvements in looms for weaving.
SPENCER, JOHN FREDERICK -	1063	14th April 1862	Steam-engines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SPENCER, THOMAS - - -	372	12th Feb. 1862	Improvements in propellers for navigable vessels and engines for actuating the same, parts of which are applicable to other processes.
SPEHL, HEINRICH - - -	288	3rd Feb. 1862	Improvements in processes for preserving and colouring wood, denominated xylochromic and xyloplastic processes. (Patented by William Clark.)
SPERRY, JOHN - - -	2548	17th Sept. 1862	Veneer cutting machinery. (Patented by Samuel C. Keeler.)
SPÉS, PIERRE ST. - - -	2010	12th July 1862	Manufacture of hats. (Patented by William Edward Gedge.)
SPIGHT, ISAAC - - -	1747	12th June 1862	Horse hoes.
SPIGHT, ISAAC - - -	3318	11th Dec. 1862	Horse hoes.
SPILSBURY, FRANCIS GYBBON	1232	26th April 1862	Improvements in the treatment of fusel oil and for various applications of the same to useful purposes.
SPINK, DANIEL - - -	2940	31st Oct. 1862	Method of propelling ships and other vessels.
SPIRING, WILLIAM MORTIMER	352	11th Feb. 1862	A new or improved rotary engine.
SPRINGER, WOLFGANG - -	288	3rd Feb. 1862	Improvements in processes for preserving and colouring wood, denominated xylochromic and xyloplastic processes. (Patented by William Clark.)
SPRUYT, CHARLES WILLIAM -	3018	8th Nov. 1862	Rails for railways.
STACK, FREDERICK RICE -	2631	27th Sept. 1862	Escalading apparatus for military purposes.
STACK, JAMES - - -	3087	13th Nov. 1862	Nursery swings and cots.
STALLARD, WILLIAM HENRY -	2974	3rd Nov. 1862	Umbrellas and parasols.
STANDEN, BRIDGE - - -	587	4th March 1862	Improvements in the preparation or manufacture of portable manure or fertilising compound, and in the collection or extraction therefrom of a certain liquid applicable to various purposes, and also in machinery or apparatus to be employed therein.
STANDISH, JOHN - - -	462	21st Feb. 1862	Improvements in machinery or apparatus for stripping or cleaning the flats of carding-engines.
STANDISH, JOHN - - -	2331	20th Aug. 1862	Machinery or apparatus used in the preparation of cotton, wool, flax or other fibrous materials to be spun.
STANDLY, HENRY JOHN - -	922	2nd April 1862	An improved instrument or tool for boring or drilling holes in slate or other rock.
STANLEY, JABEZ - - -	1696	5th June 1862	Improvements in stoves or apparatus for diffusing heat.
STANLEY, JOHN MARTIN -	1696	5th June 1862	Improvements in stoves or apparatus for diffusing heat.
STANSFIELD, RICHARD - -	1808	19th June 1862	Looms for weaving.
STANSFIELD, RICHARD - -	3347	15th Dec. 1862	Looms for weaving.
STANTON, JOHN - - -	1109	16th April 1862	Improvements in apparatus or machinery to be used in stamping or piercing metal washers and other similar articles.
STAPLES, FREDERICK - -	2104	24th July 1862	Machinery for combing wool and other fibres.
STAER, EBEN TOWNSEND -	1763	13th June 1862	Improvements in fire-arms and in the attachment of bayonets or swords thereto. (Patented by William Edward Newton.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STAUFEN, WERNER - -	1279	30th April 1862	A new material to be used in the manufacture of brushes and also applicable to the purposes for which bristles, horse hair and human hair are now used.
STAUNTON, CHARLES OCTA- [VIUS.	1680	30th May 1862	Improvements in apparatus for signalling and indicating the position of shots on targets in rifle practice and for preventing accidents to the markers.
STEART, JAMES - - -	3131	21st Nov. 1862	An improved method of extracting the fibre from <i>zostera marina</i> and other aquatic vegetable productions.
STEED, ROBERT CHURCHYARD	1632	30th May 1862	Improved apparatus for signalling on railways.
STEEL, JOHN - - - -	1932	2nd July 1862	Waterclosets.
STEEL, THOMAS - - -	2496	11th Sept. 1862	Treating soap suds or other saponaceous or oily matters.
STEELE, DANIEL - - -	1992	10th July 1862	Improvements in the method of flushing or distributing the water in pans or basins applicable to waterclosets, urinals, wash hand basins or other purposes.
STEELE, HENRY - - -	478	22nd Feb. 1862	Improvement in the arrangement of valves for steam and other engines and in the means of operating the same. (Patented by James Peterkin Douglas Camp.)
STEENSTRUP, CHRISTIAN COL- [LETT.	1866	25th June 1862	An improved economical can or vessel for containing and delivering lubricating or other fluids.
STEFANO, FRANCO - - -	3269	5th Dec. 1862	Improvements in articles of furniture.
STEINBERG, DAVID - - -	1107	16th April 1862	An improvement in setting artificial teeth. (Patented by William Edward Newton.)
STEINBERG, THEODOR - - -	1874	26th June 1862	Apparatus for ascertaining the quantity and strength of spirits or other products obtained by the process of distillation. (Patented by George Peterson.)
STEINERT, DAVID - - -	2654	30th Sept. 1862	Manufacture of varnish, printing ink, paint and printing colors. (Patented by Alexander Prince.)
STEINTHAL, JOSEPH - - -	3170	26th Nov. 1862	An improved moulders' blacking.
STELLE, DAVID DURHAM -	885	29th March 1862	An improved mode of applying acoustic apparatus in churches and other buildings and apartments. (Patented by William Edward Newton.)
STENHOUSE, JOHN - - -	55	8th Jan. 1862	Improvements in rendering certain substances less pervious to air and liquids.
STENHOUSE, JOHN - - -	150	21st Jan. 1862	Improvements in the protection of metallic surfaces, and in rendering certain substances less pervious to air and moisture.
STEPHEN, ALEXANDER, jr. -	517	26th Feb. 1862	Improvements in the construction of ships or vessels.
STEPHENS, THOMAS - - -	265	31st Jan. 1862	Improvements in the manufacture of book markers.
STEVEN, WILLIAM - - -	990	8th April 1862	Improvements in apparatus for moulding or shaping clay for bricks or other like articles.
STEVENS, CHARLES - - -	285	3rd Feb. 1862	An improved axletree. (Communicated by Victor Boulanger.)

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STEVENS, CHARLES - -	3116	20th Nov. 1862	An improved brick-making machine. (Communicated by Alois Milch.)
STEVENS, EBENEZER - -	2958	1st Nov. 1862	Iron shelves, stands and racks.
STEVENS, EBENEZER - -	3443	24th Dec. 1862	Machinery for preparing dough and paste suitable for making bread, biscuits, pastry, cakes and similar articles.
STEVENS, FRANCIS BOWES -	2713	7th Oct. 1862	Construction of condensers or coolers. (Patented by Alfred Vincent Newton.)
STEVENS, JAMES JOHN - -	135	18th Jan. 1862	Improvements in "point" indicators for railways.
STEWART, JOHN - - -	390	13th Feb. 1862	Improvements in the construction of steam-engines.
STEWART, JOHN - - -	817	24th March 1862	Improvements in the manufacture of cards for jacquard weaving. (Communicated by Louis Joseph Fillion.)
STILES, WILLIAM - - -	2624	26th Sept. 1862	An improved covering for protecting vessels and forts from shot, shell and other war-like missiles. (Patented by William Pettet.)
STOCKEN, FREDERICK - -	1492	16th May 1862	Carriages.
STOCKER, ALEXANDER RICH- [MOND.]	728	17th March 1862	Improvements in the manufacture and construction of metal boot heels and tips, and horse shoes.
STOCKER, ALEXANDER SOUTH- [WOOD.]	728	17th March 1862	Improvements in the manufacture and construction of metal boot heels and tips, and horse shoes.
STOCKER, ALEXANDER SOUTH- [WOOD.]	3414	22nd Dec. 1862	Improvements in rolling iron for the manufacture of tips and other articles.
STOCKLEY, JOSEPH - - -	1364	7th May 1862	Apparatus for grinding, smoothing and polishing plate glass.
STOEHR, EMIL MORITZ -	451	20th Feb. 1862	Improvements in the manufacture of manganese, and in the combinations of manganese with other metals. (Communicated by Oscar Eugen Prieger and Ferdinand Carl Prieger.)
STOKES, JOHN - - -	1807	19th June 1862	New or improved machinery for stocking and screwing guns and pistols.
STOKES, WILLIAM - - -	1807	19th June 1862	New or improved machinery for stocking and screwing guns and pistols.
STONE, JOHN TAYLOR GURNEY	905	1st April 1862	An improved bustle and petticoat.
STONE, JOSIAH - - -	1470	15th May 1862	Improvements in Downton's ship bilge pumps and fire-engines.
STORM, WILLIAM MONTGO- [MERY.]	3224	1st Dec. 1862	Construction of steam and other vessels. (Patented by Alfred Vincent Newton.)
STOTT, DAVID - - -	1100	16th April 1862	Improvements in the manufacture of rings from paper, millboard or pasteboard, applicable for steam or other pipe joints, bobbin ends or other purposes, and in the means or apparatus employed therein which are also applicable to the manufacture of rings from other flexible substances.
STOTT, FREDERICK LUKE -	2053	18th July 1862	Improvements applicable to mechanism or apparatus for warping yarns or threads.
STOTT, FREDERICK LUKE -	2186	30th July 1862	An improved composition or compositions for protecting polished surfaces of iron and steel against oxidation, and for renewing and improving the polish of such surfaces.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STOTT, FREDERICK LUKE -	2922	29th Oct. 1862	Improvements applicable to mechanism or apparatus for warping yarns or threads.
STRACEY, GILBERT - -	25	3rd Jan. 1862	Improvements in the manufacture of artificial fuel.
STRATTON, RICHARD AUGUSTUS. [TUS.]	1488	16th May 1862	Improvements in the manufacture of ribs for umbrellas and parasols, part of which is applicable to the hardening of strips of steel generally. (Patented by George Davies.)
STROUD, JOHN THOMAS -	2851	23rd Oct. 1862	Improvements in lamps for general and special purposes, and in parts connected connected with the same.
STROUD, JOHN THOMAS - -	2869	24th Oct. 1862	Improvements in the manufacture of and in the machinery and appliances for holding, drilling, turning, tapping, fitting and shaping certain parts of steam, water, gas and lamp fittings.
STUART, GRAHAM - - -	1141	19th April 1862	Fastening flyers upon spindles.
STUART, RICHARD - - -	1141	19th April 1862	Fastening flyers upon spindles.
STUBBS, WILLIAM - - -	2238	11th Aug. 1862	Telegraph wires.
SUCKOW, EDMUND - - -	2665	2nd Oct. 1862	Machinery for preparing, spinning and doubling fibrous materials.
SUCKOW, EDMUND - - -	2763	14th Oct. 1862	Certain improvements in machinery or apparatus for preparing, spinning and doubling cotton and other fibrous materials.
SUCKOW, EDMUND - - -	3385	18th Dec. 1862	Certain improvements in machinery or apparatus for preparing, spinning and doubling cotton and other fibrous substances.
SUGDEN, GEORGE - - -	3078	15th Nov. 1862	Means or apparatus for spinning wool, mohair, alpaca and other fibres.
SULLIVAN, WILLIAM KIRBY -	1652	31st May 1862	Improvements in the preservation of stone, plaster, cement and other like matters, the invention being likewise applicable to the manufacture of artificial stone, and to the fixation and production of colours on and in the body of stone, plaster or cement.
SUMMERS, THOMAS - - -	2057	18th July 1862	Sheer legs.
SUMMERTON, JOHN - - -	2803	17th Oct. 1862	Certain improvements in harrows for harrowing land.
SUMMONS, HENRY RICHARD -	2086	22nd July 1862	An improved apparatus for bordering envelopes, paper and cards.
SUMMONS, HENRY RICHARD -	2087	22nd July 1862	Machinery or apparatus for bordering envelopes, paper and cards.
SUNDSTEDT ADOLPHE VICTOR	3123	20th Nov. 1862	An improved composition or preparation of materials applicable for igniting matches.
SUTHERLAND, DOULAS SYMONDS. [MONDS.]	2738	10th Oct. 1862	Constructing beams, girders, bridges, and viaducts.
SUTTON, AARON - - -	3139	21st Nov. 1862	An improved construction of time indicator for public vehicles and other uses.
SUTTON, DANIEL - - -	3208	29th Nov. 1862	Apparatus for washing linen and other fabrics and garments.
SUTTON, ELLIS - - -	353	11th Feb. 1862	A certain improvement in machinery or apparatus for preparing cotton and other fibrous substances for spinning.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SUTTON, THOMAS - - -	2906	23th Oct. 1862	Preparing albumenized paper for photographic purposes.
SWAINSON, JOHN, junior -	2455	26th Dec. 1862	Improvements in the manufacture of pill boxes and similar boxes from solid wood, and in machinery to be employed in the said manufacture.
SWALLOW, JAMES - - -	1287	1st May 1862	Manufacture of carpet fabric.
SWAN, HENRY - - -	3249	4th Dec. 1862	Stereoscopic apparatus.
SWEET, ANDREW - - -	1057	12th April 1862	Certain improvements in locks and latches.
SWEET, JOHN EDSON - - -	2838	21st Oct. 1862	Improvements in the mode of and in machinery for manufacturing nails, brads and other similar articles. (Patented by George Haseltine.)
SWEET, SIDNEY - - -	1480	16th May 1862	Churns. (Patented by George Haseltine.)
SWEET, WILLIAM AVERY -	2838	21st Oct. 1862	Improvements in the mode of and in machinery for manufacturing nails, brads and other similar articles. (Patented by George Haseltine.)
SWIFT, RICHARD - - -	1512	19th May 1862	A new and improved joint for uniting or fixing posts and rails of bedsteads and other articles of furniture, posts and rails in fencing, in the construction of framework for conservatories, emigrants' and other portable houses.
SWINBURNE, ROBERT WALTER	3134	21st Nov. 1862	Manufacture of soda.
SWINNERTON, THOMAS - -	302	5th Feb. 1862	An improvement or improvements in the manufacture of coke.
SYERS, EDWARD DAVIES -	3302	9th Dec. 1862	Deodorizing petroleum, shale and other like oils.
SYERS, JOHN MILNE - -	3302	9th Dec. 1862	Deodorizing petroleum, shale and other like oils.
SYKES, LUKE RICHARDS -	634	8th March 1862	Gloves.
SYKES, PHILEMON - - -	3060	13th Nov. 1862	Improvements in rings used in machines for the continuous spinning, doubling and twisting of wool and other fibrous materials.
SYKES, REUBEN - - -	3060	13th Nov. 1862	Improvements in rings used in machines for the continuous spinning, doubling and twisting of wool and other fibrous materials.
SYMONS, NATHANIEL - -	441	18th Feb. 1862	Improvements in steam-engines for increasing the powers thereof by a different form of piston, internal top and bottom of cylinder.
SYMONS, NATHANIEL - -	1397	9th May 1862	Improvements of all kind of wheels, framework girders, columns and stanchions, blades of blowing fans, and paddle wheels for steam vessels.
SZERELMEY, NICHOLAS [CHARLES.]	2	1st Jan. 1862	Improvements in the manufacture of leather cloth or imitation leather, and in rendering certain fabrics water-proof.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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TAOLIABUE, GIUSEPPE - -	2881	25th Oct. 1862	Improved apparatus for ascertaining or testing the explosibility of liquid hydrocarbons. (Patented by Enrico Angelo Ludovico Negretti and Joseph Warren Zambra.)
TAILBOUIS, EDOUARD - -	1499	17th May 1862	Rectilineal knitting-frames.
TAILLANDIER, LOUIS ALEX- [ANDRE.]	1115	17th April 1862	Improvements in the manufacture and production of the chromates and the bichromates of potash and of soda. (Patented by Charles Denton Abel.)
TALLERMAN, LEWIS ABRAHAM	1522	20th May 1862	An improved method of protecting ladies' and children's boots and shoes.
TALLERMAN, REBECCA - -	1522	20th May 1862	An improved method of protecting ladies' and children's boots and shoes.
TAMISIER, VICTOR EMANUEL -	2725	9th Oct. 1862	Improvements in polishing precious and other hard stones and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
TANGYE, JAMES - - -	537	27th Feb. 1862	An improvement or improvements in hydraulic lifting-jacks.
TANGYE, JAMES - - -	1897	5th June 1862	Lifting-jacks.
TANGYE, JAMES - - -	2818	20th Oct. 1862	Improvements in or addition to certain kinds of pulleys for raising heavy weights.
TARR, WILLIAM - - -	2954	1st Nov. 1862	An improvement in pianofortes.
TATE, PETER - - -	1380	8th May 1862	Smelting-furnaces. (Communicated by Wlademer Raschette.)
TATHAM, AMOS - - -	2900	28th Oct. 1862	Warp machines for the manufacture of looped fabrics.
TATHAM, EDMUND - - -	2900	28th Oct. 1862	Warp machines for the manufacture of looped fabrics.
TATHAM, JOHN - - -	46	7th Jan. 1862	Machinery or apparatus for preparing, spinning, doubling and winding cotton and other fibrous materials.
TATHAM, JOHN - - -	1901	28th June 1862	Machinery or apparatus for preparing, spinning, doubling and winding cotton, wool and other fibrous materials.
TATHAM, JOHN - - -	2227	8th Aug. 1862	Improvements in machinery or apparatus for preparing, spinning and weaving cotton and other fibrous materials, parts of which improvements are also applicable to other mechanism in which an uniform or variable rotatory motion is required.
TATHAM, WILLIAM - -	3155	24th Nov. 1862	Machinery or apparatus for preparing and spinning cotton, wool, flax and other fibrous materials.
TATUM, JOEL HAYWOOD -	66	9th Jan. 1862	Improvements in the manufacture and structure of wicks, and in the application of the same to the manufacture of candles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TAUNTON, JOHN RICHARD [CROMWELL.	2621	25th Sept. 1862	Manufacture of metallic bedsteads, cots and couches.
TAUNTON, JOHN RICHARD [CROMWELL.	3309	10th Dec. 1862	Manufacture and ornamentation of metallic bedsteads and other articles of like manufacture.
TAYLOR, EDWARD HENRY -	2036	16th July 1862	Improvements in rope wheels, cages and tanks used for mines, collieries and other similar purposes.
TAYLOR, ELIZA - - -	2015	14th July 1862	Manufacture of buttons.
TAYLOR, ENOCH OPENSHAW -	1605	28th May 1862	Improvements in means or apparatus for evaporating water and other fluids, and in economising the use of steam.
TAYLOR, FREDERICK - -	957	4th April 1862	Sewing and embroidering machines.
TAYLOR, FREDERICK GEORGE	3200	29th Nov. 1862	Washing-machines.
TAYLOR, HENRY DYSON -	1408	10th May 1862	Improvements in piece-dyed woollen fabrics or fabrics composed of wool in combination with other fibrous substances.
TAYLOR, JACOB - - -	1079	15th April 1862	Improvements in machinery or apparatus for preparing cotton or other fibrous materials to be spun.
TAYLOR, JACOB - - -	1570	26th May 1862	Improvements in machinery or apparatus for preparing cotton or other fibrous materials to be spun.
TAYLOR, JACOB - - -	2779	15th Oct. 1862	Temples for looms.
TAYLOR, JAMES - - -	1523	20th May 1862	Improvements in abstracting heat from liquids and æriform fluids, and in apparatus employed therein and for other purposes.
TAYLOR, JAMES - - -	1830	21st June 1862	An improved "doffer" or "stripper" for carding-engines for preparing cotton and other substances.
TAYLOR, JAMES - - -	3444	24th Dec. 1862	Engines for carding cotton and other fibrous materials.
TAYLOR, JAMES SEELEY -	2236	9th Aug. 1862	Improvements in apparatus to be used in the manufacture of hat bodies. (Patented by George Tomlinson Bousfield.)
TAYLOR, JOHN - - -	836	26th March 1862	A suspender or improved gallery for supporting the shades of gas or other lights.
TAYLOR, JOHN GEORGE -	3461	29th Dec. 1862	Improvements in dress fastenings and in the ornamenting thereof.
TAYLOR, JOHN, junr. - -	3136	21st Nov. 1862	Manufacture of tiles or moulded blocks for building purposes.
TAYLOR, JOSEPH WALTER -	1822	20th June 1862	Improvements in valves and in means for regulating and indicating the flow and pressure of fluids.
TAYLOR, JOSEPH WALTER -	2355	1st Nov. 1862	Improvements in scouring or cleansing woollen, worsted and cotton fabrics and other fibrous materials, and in the means or apparatus employed therein.
TAYLOR, WILLIAM - - -	1011	9th April 1862	Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous materials.
TAYLOR, WILLIAM - - -	1937	3rd July 1862	Certain improvements in single and double breech-loading fire-arms.
TAYLOR, WILLIAM - - -	2603	24th Sept. 1862	Improvements in blacking or polish.
TAYLOR, WILLIAM - - -	2691	4th Oct. 1862	Machinery for preparing cotton and other fibrous materials.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TAYLOR, WILLIAM EDWARD -	300	5th Feb. 1862	Certain improvements in carding-engines.
TAYLOR, WILLIAM JOHN -	834	26th March 1862	An improved method of colouring Portland cement for plain and ornamental plasterer's work on the walls of buildings and other erections.
TEAL, JAMES - - -	2998	5th Nov. 1862	Machinery or apparatus for washing wool and other fibrous materials.
TEBBUTT, THOMAS RAINFORTH	1875	26th June 1862	Certain improvements in the manufacture of soap, soda and other material employed for the purpose of washing and cleansing.
TEMPERLEY, JOHN PUGH -	1123	17th April 1862	Improvements in the air pumps of steam-engines.
TEMPLAR, BENJAMIN - -	1654	2nd June 1862	Apparatus for registering and indicating billiards and other games.
TEMPLETON, ROBERT - -	419	17th Feb. 1862	Looms for weaving.
TERRY, CHARLES FREDERICK -	2714	8th Oct. 1862	Machinery for propelling vessels.
TESSIER, CHARLES HIPPOLYTE	1504	17th May 1862	A new safety lock. (Communicated by Baptiste L'Hermitte.)
TEVENDALE, ANDREW - -	577	3rd March 1862	Improvements in the apparatus used in connection with cooking-stoves and domestic fire-places for the manufacture and supply of gas.
THAURIN, VICTOR ARMAND -	3329	12th Dec. 1862	Hand and power looms for weaving. (Patented by Joseph Eusèbe Roussel.)
THAYER, JAMES SMITH -	904	31st March 1862	Machinery for cutting corn and other crops. (Patented by William McIntyre Cranston.)
THEYSON, ROBERT - - -	1019	9th April 1862	Cork cutting machinery.
THIRÉ, NAPOLEON VICTOR -	2394	29th Aug. 1862	An improved self-inking hand stamp.
THIRIEZ, ALFRED - - -	2211	7th Aug. 1862	A new machine for glossing and glazing all thready fabrics.
THIRION, ALBERT LOUIS -	1485	16th May 1862	Improvements in the construction of railway and other carriages.
THOM, JAMES - - - -	2513	12th Sept. 1862	Mounting or fitting artificial teeth.
THOMAS, CHARLES - - -	2756	13th Oct. 1862	Improvements in the manufacture of silicate of soda or silicate of potash, and in the manufacture of artificial stone.
THOMAS, EDWARD - - -	2032	15th July 1862	A new or improved method of strengthening wooden shutters and doors.
THOMAS, JEAN BAPTISTE -	2989	5th Nov. 1862	Apparatus for working and controlling railway signal discs.
THOMAS, JOSEPH - - -	2196	5th Aug. 1862	An improved self-adjusting screw wrench.
THOMAS, ROBERT BROCKHOLES	3242	3rd Dec. 1862	An apparatus for turning over the leaves of music.
THOMAS, WILLIAM - - -	1806	30th June 1862	Improvements in the running gear of four-wheeled carriages.
THOMPSON, ARTHUR THOMAS	694	13th March 1862	Improvements in railway apparatuses for communicating between guard and driver and for coupling and uncoupling the carriages, parts of which apparatuses are applicable to connecting pipes and tubes.
THOMPSON, BENJAMIN - -	68	9th Jan. 1862	Improvements in ordnance and fire-arms, and in projectiles to be used therewith. (Communicated by Edward Heaton.)
THOMPSON, BENJAMIN - -	979	5th April 1862	Steam-engines.
THOMPSON, JACOB BAYNES -	2431	2nd Sept. 1862	Electro-magnetic machines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THOMPSON, JOHN GEORGE. -	781	20th March 1862	Improvements in pianofortes, organs, harmoniums and other instruments having key-boards.
THOMPSON, JOSEPH JOHN -	3342	13th Dec. 1862	Machinery or apparatus for making pies and for cutting meat for the same.
THOMPSON, NATHAN - -	127	17th Jan. 1862	Apparatus for stopping bottles.
THOMPSON, NATHAN - -	1491	16th May 1862	Improvements in stoppers or covers suitable for closing bottles, jars and other similar vessels.
THOMPSON, NATHAN - -	1904	28th June 1862	Improvements in apparatus for stopping bottles, jars and other vessels, and in instruments for applying and removing such stopping apparatus.
THOMPSON, NATHAN - -	3100	18th Nov. 1862	Apparatus for stopping bottles, jars and other vessels.
THOMPSON, NATHANIEL -	1386	8th May 1862	Barometers. (Communicated by Jedediah Hubbell Dorwin.)
THOMPSON, ROSEWELL - -	2144	29th July 1862	A new and useful improvement in lock stitch sewing-machines.
THOMPSON, SAMUEL KEARSLEY	694	13th March 1862	Improvements in railway apparatuses for communicating between guard and driver and for coupling and uncoupling the carriages, parts of which apparatuses are applicable to connecting pipes and tubes.
THOMSON, DAVID - - -	3088	17th Nov. 1862	Screw cocks.
THOMSON, HENRY - - -	2944	31st Oct. 1862	Railway signals.
THOMSON, JAMES EDWARD -	2554	17th Sept. 1862	Improvements in apparatus for the manufacture of gas from petroleum oil and water, and from cannel coals, bituminous coals, schists, tar, crude coal oil, or other hydro-carbons and water. (Patented by George Haseltine.)
THOMSON, JAMES HILL - -	3050	12th Nov. 1862	Machinery or apparatus for finishing and dressing tiles and similar articles of clay.
THOMSON, JOHN - - -	2504	11th Sept. 1862	Treatment of vegetable fibres with a view to their manufacture into textile fabrics.
THOMSON, WILLIAM - - -	1097	16th April 1862	Improvements applicable to upholsterers' and other hand hammers. (Patented by John Barbour.)
THOMSON, WILLIAM - - -	1813	19th June 1862	Machinery for making bricks, tiles and other articles.
THORNE, JAMES - - -	3371	17th Dec. 1862	Apparatus for regulating the flow of gas to burners.
THORNTON, WILLIAM - -	2526	13th Sept. 1862	An improved mode of and apparatus for sleeking, creasing and raising leather. (Patented by Alfred Vincent Newton.)
THOROLD, ERNEST - - -	3338	13th Dec. 1862	Improvements in drill braces, which improvements are also applicable to spanners.
THORP, ROBERT - - -	3271	6th Dec. 1862	Improved coating or covering for steam-boilers and other surfaces, to prevent the radiation of heat.
THUDICHUM, JOHN LOUIS [WILLIAM.]	3361	16th Dec. 1862	Improvements in collecting human excreta and in the apparatus and means employed therein.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THUDICHUM, JOHN LOUIS WILLIAM.	3396	18th Dec. 1862	Improvements in the preservation of beer and other fermented liquids, and in the apparatus and means to be employed therein.
TICE, WILLIAM - - -	136	18th Jan. 1862	Improvements in gas regulators and meters, part of which invention is also applicable for covering various descriptions of metal spindles.
TIESSET, CASIMIR - - -	204	27th Jan. 1862	Improvements in the manufacture of colours for dyeing and printing.
TILDESLEY, MATTHEW - -	3261	5th Dec. 1862	Improvements in the manufacture of earthenware knobs and in fixing them in spindles used with certain kinds of knobs, in securing the metal mounts upon such knobs, and in apparatus to be employed in certain parts of this manufacture.
TILLAM, THOMAS - - -	578	3rd March 1862	An improved method of purifying gas.
TILLARD, ROSALIE CLÉMENTINE.	768	19th March 1862	Improvements in reproducing or in producing copies of guipure lace, embroidery and other like articles. (Patented by Richard Archibald Brooman.)
TIMMINS, THOMAS - - -	114	15th Jan. 1862	An improved bath combining in itself the advantages of the hot-air or Turkish bath with the vapour, slipper, hot and cold water shower bath.
TINDALL, JOHN WILLIAM [WARD.	2059	19th July 1862	A process of deodorizing paraffine, coal, pitch, rock and other like oils and hydrocarbons.
TIZARD, WILLIAM LITTELL -	1256	29th April 1862	Improvements in heating, cooling and condensing apparatuses.
TIZARD, WILLIAM LITTELL -	2533	15th Sept. 1862	Improvements in the construction of ships, vessels, cupolas and forts, and in apparatus employed therein.
TODD, BRERETON - - -	735	17th March 1862	Improvements in the manufacture of antimony and the oxide of antimony.
TODD, GEORGE MEEK - - -	772	19th March 1862	Improvements in shuttle sewing-machines, and the production of a new kind of stitch thereby.
TODD, JACOB - - - -	2559	18th Sept. 1862	Machinery or apparatus for "collecting waste or fly" from spinning machinery, whether for cotton or any other fibrous material.
TODD, JOHN MATTHEW - -	1120	17th April 1862	Looms for weaving.
TODD, PETER - - - -	3285	8th Dec. 1862	Certain improvements in pickers used in looms for weaving.
TODD, WILLIAM - - - -	2559	18th Sept. 1862	Machinery or apparatus for "collecting waste or fly" from spinning machinery, whether for cotton or any other fibrous material.
TOEPKEN, VICTOR - - -	3382	18th Dec. 1862	Making and packing friction matches.
TOLHAUSEN, FREDERICK -	335	8th Feb. 1862	Improvements in the manufacture of the tyres of railway wheels and in apparatus for such purpose. (Communicated by Antoine Duplay.)
TOLHAUSEN, FREDERICK -	365	12th Feb. 1862	Construction of vertical steam-boilers. (Communicated by Jean Larmanjat.)

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TOLHAUSEN, FREDERICK -	676	12th March 1862	An improved kind of spinning or humming top. (Communicated by Jean Marie Charles Martin, Esq.)
TOLHAUSEN, FREDERICK -	847	27th March 1862	New or improved cigar-tubes or apparatus for holding and smoking cigars and cigarettes. (Communicated by Joseph Charles Tous-saint.)
TOLHAUSEN, FREDERICK -	1065	14th April 1862	A telegraphic dial printing apparatus. (Communicated by Jean Baptiste Rousse and Henry Vivès.)
TOLHAUSEN, FREDERICK -	1121	17th April 1862	An improved machine for making bricks, tiles, and the like articles. (Communicated by Victor Duprat.)
TOLHAUSEN, FREDERICK -	1160	21st April 1862	An improvement in horse shoes. (Communicated by Paul Eugène Clément.)
TOLHAUSEN, FREDERICK -	1452	14th May 1862	Improvements in the manufacture of velvets. (Communicated by Antoine Denis.)
TOLHAUSEN, FREDERICK -	1588	27th May 1862	A new or improved method of applying various mineral and organic substances to wire gauze, metallic and asbestos tissues, for rendering said tissues available for ornamental and useful purposes. (Communicated by Edouard Heinhold.)
TOLHAUSEN, FREDERICK -	1748	12th June 1862	A new or improved surgical injecting apparatus. (Communicated by Claude André Jozansi, M.D.)
TOLHAUSEN, FREDERICK -	1838	21st June 1862	Apparatus for preventing collisions on railways. (Communicated by Hercule Barbier.)
TOLHAUSEN, FREDERICK -	1864	25th June 1862	An improved lock or locking apparatus. (Communicated by Jean-Georges Kast and Adolphe Dobler.)
TOLHAUSEN, FREDERICK -	2614	25th Sept. 1862	An improved steam cultivator. (Communicated by the Marquis Emmanuel de Poncins.)
TOLHAUSEN, FREDERICK -	2839	21st Oct. 1862	An improved machine for raising, lowering, removing and carrying buildings, monuments and ships or vessels. (Communicated by Jean Jerome Rancurel.)
TOLHAUSEN, FREDERICK -	3465	29th Dec. 1862	The use of petroleum or coal oil as fuel, and also for the machinery and apparatus to be employed for this purpose. (Communicated by Edward John Biddle.)
TOMLINSON, JOHN - -	171	23rd Jan. 1862	Washing-machines.
TONGUE, JOHN GARRETT -	2326	20th Aug. 1862	Improvements in processes and apparatus for extracting the natural wax or fatty matters from wool, hair or other animal or vegetable substances containing the same, and in the application thereof to various useful purposes. (Communicated by Augustin Evard.)
TONGUE, WILLIAM - - -	590	4th March 1862	Improvements in machinery for breaking, rubbing and scutching flax, hemp or other vegetable fibrous materials, and in processes for treating silk waste.
TONGUE, WILLIAM - - -	596	5th March 1862	Improvements in machinery for preparing silk, flax, hemp or other fibrous materials.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TONGUE, WILLIAM - - -	752	18th March 1862	Improvements in machinery and in processes for preparing, heckling, dressing and combing flax, hemp, silk and other fibrous materials.
TONGUE, WILLIAM - - -	3366	17th Dec. 1862	Machinery and processes for preparing fibrous materials.
TONKIN, JOHN, JR. - - -	320	6th Feb. 1862	Improvements in the manufacture of gun-powder.
TOOGOOD, ROBERT MOORE -	943	3rd April 1862	An improvement in railway crossings.
TOPHAM, JOHN - - -	814	24th March 1862	Improvements in apparatus used for cleansing out the scum and removing the sediment from the water in steam-boilers, and preventing incrustation therein.
TORR, GEORGE - - -	532	27th Feb. 1862	Improvements in and an improved apparatus for manufacturing and reburning animal charcoal.
TOSELLI, GEORGES - - -	1093	15th April 1862	Improvements in apparatus for freezing, cooling and churning. (Patented by Rupert Rains.)
TOSELLI, GIOVANNI BATTISTA	1684	4th June 1862	Apparatus for freezing and cooling liquids and mixing syrups.
TOURRIER, JEAN FURCY -	152	21st Jan. 1862	An improved method of and apparatus for warming adjoining houses by means of air chambers attached to grates in the party walls dividing such houses.
TOUSSAINT, JOSEPH CHARLES	847	27th March 1862	New or improved cigar tubes or apparatus for holding and smoking cigars and cigarettes. (Patented by Frederick Tolhausen.)
TOW, JOHN - - - -	130	18th Jan. 1862	Improvements in the construction of stoves or fire-places.
TOWNEND, JAMES - - -	477	22nd Feb. 1862	Jacquard engines.
TOWNEND, JOHN - - -	1797	18th June 1862	Self-acting and other mules for spinning cotton or any other fibrous substances.
TOWNSEND, CHARLES HENRY	876	29th March 1862	An improved method of removing and preventing incrustation in steam-boilers.
TOWNSEND, ELMER - - -	1990	10th July 1862	A new and useful invention for making nails and driving such nails into the sole of a boot or shoe. (Communicated by Joseph Foster Sargent.)
TOWNSEND, JOSEPH - - -	2196	5th Aug. 1862	Improvements in damping cotton and other fibrous materials and fabrics, in preserving the same from mildew, and in preserving size or stiffening from decomposition.
TOWNSEND, JOSEPH - - -	3127	21st Nov. 1862	Damping and preserving vegetable substances and vegetable and other textile materials and fabrics.
TOYNEEE, EDWARD - - -	3317	10th Dec. 1862	Improvements in extracting oils and fatty matters from shoddy or refuse wool, skins or skin pieces, glue pieces, cotton waste and other animal or vegetable matter, and in producing an artificial manure.
TOZER, WILLIAM - - -	162	21st Jan. 1862	Boots and shoes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TRACHSEL, FREDERICK - -	2906	3rd Nov. 1862	Improvements in machinery or apparatus for obtaining light, heat and ventilation, parts of which improvements are also applicable to other purposes.
TRACY, DWIGHT - - -	2855	23rd Oct. 1862	Sewing-machines. (Patented by William Clark.)
TRACHEIM, SAMUEL - -	2999	5th Nov. 1862	Improvements in treating hemp preparatory to its being spun.
TRANter, WILLIAM - -	2087	19th July 1862	Fire-arms.
TRAVERSIER, JOSEPH ADOLPHE	1198	24th April 1862	Some improvements in making ladies' bonnets.
TRAVI, HENRI - - -	2387	28th Aug. 1862	An improved assorting apparatus applicable to the "numbering" of raw silks. (Patented by Marc Antoine François Mennons.)
TRAVIS, ALFRED - - -	791	21st March 1862	Improvements in engines for carding cotton and other fibrous materials.
TRAVIS, ALFRED - - -	1265	30th April 1862	Engines for carding cotton and other fibrous materials.
TRAVIS, BENJAMIN - - -	1265	30th April 1862	Engines for carding cotton and other fibrous materials.
TRAVIS, JOSEPH - - -	131	18th Jan. 1862	Improvements in the manufacture of velvets, velveteens and other similar piled fabrics.
TREADWELL, DANIEL - -	3234	2nd Dec. 1862	Apparatus for discharging guns or ordnance. (Patented by George Tomlinson Bousfield.)
TREEBY, THOMAS WRIGHT [GARDNER.	98	13th Jan. 1862	An improved method of and apparatus for producing rifled cannon and fire-arms.
TREES, COOPER - - -	2840	21st Oct. 1862	Hats, caps, bonnets and other coverings for the head.
TREPPASS, HENRY HUGHES -	214	28th Jan. 1862	Improvements in the construction, use and employment of the kaleidoscope.
TRES, COOPER - - -	1474	15th May 1862	Improvements in the manufacture of hats, helmets, bonnets or caps.
TRIGG, HARRY RICHARD -	2427	2nd Sept. 1862	An improved fire-escape, it can be made portable or as a fixture.
TRIGT, CHARLES FREDERIC [AUGUSTUS VAN.	3183	27th Nov. 1862	Treatment of old manufactured fabrics in order to obtain useful fibrous products therefrom.
TRIMEN, ANDREW - - -	1038	10th April 1862	The protection and solidification of magnesian limestone and other stones, and for the prevention of the passage of water through the same.
TRISTRAM, WILLIAM - -	121	16th Jan. 1862	Certain improvements in power looms for weaving.
TRISTRAM, WILLIAM - -	2828	21st Oct. 1862	An improved method of and apparatus for preparing and dressing yarns or threads to be employed as warps.
TRISTRAM, WILLIAM - -	3319	11th Dec. 1862	Machinery or apparatus for sizing yarns and threads.
TRONCHON, ALFRED PIERRE -	1151	21st April 1862	Improvements in the construction of houses, walls, palisades and other similar constructions.
TRONCHON, ALFRED PIERRE -	3435	24th Dec. 1862	Some improvements in the construction of fire-arms.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TROUILLET, ANTOINE - -	2071	21st July 1862	Improved excavating or boring apparatus. (Patented by William Edward Gedge.)
TROWBRIDGE, WILLIAM -	1185	23rd April 1862	Improvements in apparatus for taking deep sea soundings and for recording the speed of ships. (Patented by John Henry Johnson.)
TRUFFAUT, ALEXANDRE LENNE	1909	30th June 1862	Looms for weaving. (Patented by William Edward Gedge.)
TUCK, EDMUND - - -	1581	27th May 1862	Certain improvements in electrical manipulation applicable to submarine telegraphs.
TUCK, JOSEPH HENRY - -	801	22nd March 1862	Improvements in the manufacture of flexible valves.
TUCKER, EDWARD SAMUEL -	78	10th Jan. 1862	The application of velvet, plush, cloth, leather, American cloth, oil cloth and other such like substances, alone and in combination with other materials, for advertising show boards, show cards, window tickets and all such uses.
TUCKER, STEPHEN DAVIS -	2239	11th Aug. 1862	Improved machinery for compressing powder for cartridges. (Patented by William Edward Newton.)
TUCKER, WALTER HENRY -	2829	21st Oct. 1862	Self-closing apparatus for doors.
TUDOR, EDWARD SCRIPPS -	2908	28th Oct. 1862	Purification of lead.
TULPIN, ALEXANDRE MARIE [FORTUNÉ.]	2365	26th Aug. 1862	Improved machines for washing skeins of cotton, linen, wool or silk. (Patented by George Davies.)
TULPIN, ALEXANDRE MARIE [FORTUNÉ.]	2371	27th Aug. 1862	A machine for singeing woven fabrics of cotton, wool or silk, by means of gas or alcohol. (Patented by George Davies.)
TURNBULL, FREDERICK - -	1545	22nd May 1862	Improvements in the manufacture of floor-cloths and like coverings.
TURNBULL, JOHN - - -	2854	23rd Oct. 1862	Mills for grinding grain.
TURNBULL, SAMUEL - - -	1545	22nd May 1862	Improvements in the manufacture of floor-cloths and like coverings.
TURNER, CORNELIUS - - -	408	15th Feb. 1862	Felted fabrics.
TURNER, GEORGE - - -	1869	25th June 1862	Improvements in mincing apparatus, such improvements being also applicable to machines for grinding coffee and spices.
TURNER, GEORGE - - -	2274	13th Aug. 1862	Fastening armour plates of ships.
TURNER, JAMES - - -	442	19th Feb. 1862	Improved machinery for mixing, mincing and pounding materials to be used in the preparation of food.
TURNER, MANSFIELD - - -	1792	17th June 1862	Improvements in small arms and ordnance and in sights for the same, part of which may be used for measuring distances.
TURNER, SAMUEL ELLISON -	811	24th March 1862	An improved apparatus for burning a mixture of inflammable gas and air.
TURNER, THOMAS - - -	1803	28th May 1862	Machinery for scouring and polishing knitting and other pins and needles.
TURNER, THOMAS - - -	1937	3rd July 1862	Certain improvements in single and double breech-loading fire-arms.
TURNER, WILLIAM - - -	710	14th March 1862	Improvements in the construction of bakers' ovens and in the use of furnaces and other apparatus connected therewith, and in the means or appliances employed therein.

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TURNER, WILLIAM - - -	911	1st April 1862	Improvements in machinery or apparatus employed in the manufacture of dough and especially of fermented dough.
TURNER, WILLIAM ALLEN -	2823	20th Oct. 1862	Improvements in apparatus for measuring cloths and other fabrics, parts of which are also applicable to indicating distances travelled by vehicles.
TURNER, WILLIAM ALLEN -	3314	10th Dec. 1862	Machinery for cutting or paring starch.
TURNER, WILLIAM HENRY -	1715	9th June 1862	Engines for carding cotton and other fibrous materials.
TURNER, WILLIAM HENRY -	2375	27th Aug. 1862	Machinery or apparatus for carding cotton and other fibrous materials.
TUSSAUD, FELIX - - -	2962	3rd Nov. 1862	An improved machine for cutting metal, also applicable to cutting other substances.
TUSSAUD, FRANCIS CURTIUS -	2269	13th Aug. 1862	Treatment of representations formed from wax or from compositions of wax with other matters.
TUSSAUD, JOSEPH RANDALL -	2269	13th Aug. 1862	Treatment of representations formed from wax or from compositions of wax with other matters.
TWADDELL, ALEXANDER -	3053	13th Nov. 1862	Improved arrangements for dressing or sizing warps.
TWELVETREES, HARPER -	2273	13th Aug. 1862	Rat and mice traps.
TWELVETREES, HARPER -	2348	22nd Aug. 1862	Preparation of washing-powders, soap-powders and cleansing crystals.
TWELVETREES, HARPER -	3225	2nd Dec. 1862	Apparatus for cleaning knives, forks and boots.
TWELVETREES, HARPER -	3226	2nd Dec. 1862	An improved sawing, filing, mortising and turning apparatus.
TWELVETREES, HARPER -	3227	2nd Dec. 1862	Washing, wringing and mangling machines.
TWELVETREES, HARPER -	3440	24th Dec. 1862	Washing-machines.
TYLER, CHARLES - - -	2174	31st July 1862	Manufacture of fluids suitable for burning in lamps and for other uses. (Patented by George Tomlinson Bosfield.)
TYLER, CHRISTOPHER - -	743	17th March 1862	Breech-loading fire-arms. (Patented by Thomas Waller.)
TYLER, CLARA ANN - - -	1760	13th June 1862	A new or improved holder for holding dinner and other plates and dishes, and for other like purposes.
TYLER, JOSEPH - - -	1308	3rd May 1862	Improvements in the manufacture of clarionets.
TYLER, WILLIAM - - -	891	31st March 1862	A new or improved mixture or composition for feeding dogs and other animals and poultry.
TYSALL, EPHRAIM - - -	2120	25th July 1862	An improved manufacture of fork.
TYTHERLEIGH, WILLIAM -	2567	19th Sept. 1862	An improved heater for ironing or pressing.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
U.			
ULLMER, EDWIN - - -	3277	6th Dec. 1862	Cylinder printing-machines.
ULLMER, WILLIAM - - -	3277	6th Dec. 1862	Cylinder printing-machines.
UNDERWOOD, RICHARD - - -	248	30th Jan. 1862	Watches and pocket chronometers.
UNSWORTH, JOHN - - -	2921	29th Oct. 1862	Steam-engines.
UPFILL, WILLIAM - - -	2404	29th Aug. 1862	Construction of wheels and axletrees for carriages.
UPFILL, WILLIAM - - -	2609	24th Sept. 1862	Improvements in the manufacture of metallic bedsteads, part of which improvements are also applicable for ornamenting tubes and curtain and cornice poles.
V.			
VACHER, FRANCIS - - -	3205	29th Nov. 1862	Ornamenting playing-cards.
VAILE, ROBERT - - -	1243	28th April 1862	Propellers for ships and boats.
VAILLANT, CHARLES - - -	1542	22nd May 1862	A new process for the production of designs in relief and in deepening on sheets of india-rubber of any length whatever. (Patented by Eugene De la Bastida.)
VAILLANT, CHARLES - - -	1924	2nd July 1862	A new method of manufacturing india-rubber articles by the simultaneous combination of pressure and vulcanization. (Patented by Eugene de Lebastida.)
VALENTIN, WILLIAM GEORGE	395	13th Feb. 1862	An improved mode of and apparatus for coking coal.
VALENTIN, WILLIAM GEORGE	2206	6th Aug. 1862	Improvements in the generation of combustible gases for lighting and heating purposes, and in the mode of applying such gases to the manufacture of iron, glass and other processes in the arts where great heat is required.
VALETTE, JEAN ANTOINE [ALEXIS CAMBON DE LA.	2206	12th July 1862	Certain improvements in vessels mounted as floating batteries. (Patented by Marc Antoine François Menons.)
VAN ARSDALE, ABRAHAM -	885	29th March 1862	An improved mode of applying acoustic apparatus in churches and other buildings and apartments. (Patented by William Edward Newton.)
VAN DEN BERG, JAMES JOHN	422	17th Feb. 1862	A new fire-lighter.
VAN DER BYL, PETER GER- [HARD.	2657	1st Oct. 1862	A power-conserver brake for utilizing the power expended in stopping or retarding machinery, locomotive or other engines and vehicles of any description when in motion. (Communicated by Charles Bell.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VAN TRIGT, CHARLES FREDERICK AUGUSTUS.	3183	27th Nov. 1862	Treatment of old manufactured fabrics in order to obtain useful fibrous products therefrom.
VANDERBILT, GEORGE RUTGER	1827	21st June 1862	A polishing and grinding belt formed of leather or other flexible or pliable material having plugs composed of emery or other gritty substance, and a proper cement inserted in it substantially. (Patented by Bernardo Fabricotti.)
VARENNE, VINCENT PAUL [AMÉDÉE.	2109	24th July 1862	Improvements in apparatus for retarding and stopping carriages especially applicable to railway carriages, and in disconnecting apparatus for carriages. (Patented by Michael Henry.)
VARLEY, CROMWELL FLEET-WOOD.	3453	26th Dec. 1862	Electric telegraphs.
VARLEY, JOHN - - -	3354	16th Dec. 1862	Certain improvements in steam-engines and apparatus connected therewith.
VARLEY, SAMUEL - - -	1793	17th June 1862	Reaping-machines.
VARVILL, ROBERT - - -	523	26th Feb. 1862	Improvements in apparatus for controlling the flow of fluids for flushing water-closets.
VASSEUR, JEAN BAPTISTE -	1317	3rd May 1862	Improvements in the process of and apparatus for preparing materials for the manufacture of paper, and in obtaining products from agents used in the said process, part of the invention being also applicable to apparatus for washing. (Patented by Michael Henry.)
VASSEUR, JEAN BAPTISTE -	2155	29th July 1862	Improvements in obtaining fibrous materials and paper pulp, in treating, cleansing and scouring fibrous materials and fabrics manufactured thereof, in producing soap for the said operations, and in obtaining products from liquors used therein. (Patented by Michael Henry.)
VATTIER, CHARLES EDOUARD [AUGUSTE.	2123	26th July 1862	Improvements in obtaining or extracting silver from ores and other bodies and in apparatus for the same. (Patented by William Clark.)
VAUTHERIN, JULES - - -	3193	28th Nov. 1862	Permanent way of railways. (Patented by William Clark.)
VAUTIER, ANTOINE CONSTANT	2091	22nd July 1862	Improvements in obtaining fibrous materials and in manufacturing paper pulp, also in preparing, bleaching and treating fibrous materials and fibrous and textile fabrics, and in producing agents used in part of the invention.
VERKAMP, DIRK - - -	3183	27th Nov. 1862	Treatment of old manufactured fabrics in order to obtain useful fibrous products therefrom.
VELINA, GIUSEPPE - - -	1519	20th May 1862	Improvements in the method of and apparatus for applying screw power to the locomotion of railway trains on steep inclines. (Patented by Marc Antoine François Mennons.)
VENINI, JOSEPH - - -	2885	27th Oct. 1862	Heating glass furnaces. (Patented by John Henry Johnson.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VENNEDY, AUGUSTINE - -	2743	11th Oct. 1862	An improved composition for covering and forming the tips of umbrellas and parasols, also applicable to covering the ribs and stretchers of same.
VERITY, JAMES - - -	1704	6th June 1862	An improved composition for coating and preserving walls or other exposed surfaces.
VERONIQUE, CHARLES - -	268	31st Jan. 1862	An improved wrapper garment.
VERRAERT, DE VOS - -	535	27th Feb. 1862	Improvements in the construction of fire-grates for steam and other boilers and suitable to all kinds of fires. (Patented by William Armand Gilbee.)
VERSTRAET, LOUIS DÉSIRÉ -	2275	13th Aug. 1862	A new process of manufacturing carbonate of soda by the application of sulphuret of sodium, and in apparatus for the same.
VESTER, FRANZ - - -	3133	21st Nov. 1862	Improvements in strengthening, securing and rendering more durable the soles or bottoms of boots, shoes and other coverings for the feet. (Patented by Charles Wagner.)
VETTE, THEODOR - - -	921	1st April 1862	Filters.
VEYE, THEODORE VICOMTE DE	1642	31st May 1862	A coating intended to protect iron from rust, and to preserve wood, cloth, paper and pasteboard used for packing or roofing.
VICKERS, THOMAS EDWARD -	3326	11th Dec. 1862	Construction of ordnance.
VICTOR, JOSEPH - - -	1334	5th May 1862	Improvements in the manufacture of safety fuses for mining and other purposes.
VIDIE, LUCIEN - - -	682	13th March 1862	Improvements in the construction of aneroid barometers, partly applicable to steam gauges.
VIGNEULLE-BREPSON, ANNE [JEAN FERDINAND.	2863	24th Oct. 1862	A siphoidal cistern with water reservoir for kitchen or other drains in communication with infected sewers.
VIGNON, ALPHONSE - -	2096	23rd July 1862	Means and apparatus for extinguishing fires either on land or water. (Communicated by François Carlier.)
VIGOUROUX, JOSEPH - -	2489	10th Sept. 1862	An inoxydable white metal suitable for making taps or cocks and other useful articles.
VILLA, IGNAZIO - - -	1647	31st May 1862	A new and improved method of exhibiting terrestrial and astronomical phenomena, and of facilitating the solution of problems relating thereto without the aid of calculation.
VILLAIN, SIXTE PIERRE -	437	19th Feb. 1862	Improvements in carding or otherwise preparing cotton and other fibrous materials and in machinery employed therein. (Patented by Henry Bernoulli Barlow.)
VILLENEUVE, THÉODORE [CHAMPIERRE DE.	2748	11th Oct. 1862	Improvements in evaporating apparatus applicable to the manufacture of sugar. (Patented by Alfred Vincent Newton.)
VILLIAN, EDMÉ PAUL - -	1209	25th April 1862	Improvements in the manufacture of fringes and in apparatus connected therewith. (Patented by John Francis Brunet.)
VINAY, PIERRE JULES EMILE	562	1st March 1862	Electric alarums for telegraphic purposes. (Patented by Adolphe Ernest Ragon.)
VIRLOY, MACEDO ALEXANDRE [LE BRUN.	1533	21st May 1862	Improvements in drying and carbonising wood, peat and other fuel.

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ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VIVÈS, HENRY - - -	1065	14th April 1862	A telegraphic dial printing apparatus. (Patented by Frederick Tolhausen.)
VOGL, MAURICE - - -	1526	20th May 1862	Improved apparatus for protecting houses and other buildings from burglars.
VOGL, MAURICE - - -	2590	22nd Sept. 1862	Fastenings for leggings and other articles of wearing-apparel.
VOISIN, ALEXIS - - -	2668	24th Oct. 1862	Construction of seamless stays. (Patented by James Wright.)
VOISIN, CLEMENT - - -	2668	24th Oct. 1862	Construction of seamless stays. (Patented by James Wright.)
VOSS, WILHELM HEINRICH [CHRISTIAN.	902	31st March 1862	Rotatory engines. (Patented by John Henry Johnson.)
VOSS, WILHELM HEINRICH [CHRISTIAN.	2884	27th Oct. 1862	Rotatory engines. (Patented by John Henry Johnson.)

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WACHTER, LOUIS RUPERT -	1894	28th June 1862	Improved apparatus for the prevention and reduction of synovial and other swellings or tumours in the limbs of horses. (Patented by Marc Antoine François Mençons.)
WADDINGHAM, THOMAS, junior	2413	1st Sept. 1862	An improved foundation or groundwork for plaster for ceilings, walls, partitions and other purposes.
WADDINGTON, WILLIAM [ALFRED.	3187	28th Nov. 1862	Machinery for cutting wood.
WADSHAM, MORTIMER - -	2180	1st Aug. 1862	Apparatus for drying grain, gunpowder and other granular substances. (Patented by George Haseltine.)
WADSWORTH, EDWARD - -	3180	25th Nov. 1862	Machinery used in the manufacture of certain description of "braid."
WADSWORTH, JAMES - -	687	13th March 1862	Improvements in the construction and manufacture of moveable or adjustable heels for boots and shoes.
WADSWORTH, JAMES - -	2669	3rd Oct. 1862	Improvements in deodorizing refuse organic fecal and urinous matters, and in a method of utilizing coal and other ashes, and in machinery or apparatus connected therewith for producing a portable manure therefrom.
WAGNER, CHARLES - -	3133	21st Nov. 1862	Improvements in strengthening, securing and rendering more durable the soles or bottoms of boots, shoes and other coverings for the feet. (Communicated by Franz Vester.)
WAHL, FRANÇOIS THÉOBALD -	491	24th Feb. 1862	Improvements in apparatus for feeding or supplying steam-boilers with water. (Patented by William Clark.)
WAIN, JOHN - - - -	3442	24th Dec. 1862	Machines for spinning and for doubling cotton and other fibrous materials.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WAIN, WILLIAM - - -	2884	24th Oct. 1862	Improvements in the construction of "cupolas" and in apparatus connected therewith, for naval or other war purposes.
WAITHMAN, JOSEPH - -	1997	11th July 1862	Machinery or apparatus for carding flax, tow or other fibrous materials.
WAKE, JOHN DAVIS - -	1736	11th June 1862	Construction of ships and vessels.
WALDIE, GEORGE - - -	2152	29th July 1862	Improvements in colour printing and in the machinery or apparatus employed therein.
WALKER, ALEXANDER - -	2280	14th Aug. 1862	A new instrument to determine or ascertain the depth of water and the distance a ship has run.
WALKER, BERNARD PEARD -	3174	26th Nov. 1862	Machinery or apparatus for making boot and shoe heel and toe tips, clog irons and other similar articles.
WALKER, FREDERICK - -	2507	11th Sept. 1862	Machinery for combing and carding or hackling flax, silk, wool and other fibrous substances.
WALKER, HENRY - - -	1415	12th May 1862	Improvements in making handles for crochet needles, pencils, penholders and other articles.
WALKER, JAMES - - -	2414	1st Sept. 1862	Improvements in the treatment of kelp and in the manufacture of products therefrom.
WALKER, JOHN - - -	5	1st Jan. 1862	Improvements in the construction of forts and fortifications, which are applicable to floating batteries.
WALKER, JOHN - - -	2507	11th Sept. 1862	Machinery for combing and carding or hackling flax, silk, wool and other fibrous substances.
WALKER, JOSEPH - - -	2482	9th Sept. 1862	Manufacture of oil presses.
WALKER, JOSEPH EBENEZER -	2642	29th Sept. 1862	Signalling on railways.
WALKER, MOWBRAY - - -	971	4th April 1862	Improvements in breech-loading rifles and other fire-arms, and in ordnance.
WALKER, ROBERT - - -	1295	2nd May 1862	Improvements in malting and in apparatus therefor.
WALKER, ROBERT PERCY -	3174	26th Nov. 1862	Machinery or apparatus for making boot and shoe heel and toe tips, clog irons and other similar articles.
WALKER, THOMAS - - -	3132	21st Nov. 1862	Improvements in utilizing sewage matters and in the means or apparatus employed therein, part of which improvements is also applicable to raising and forcing other fluids.
WALL, ARTHUR - - -	2988	4th Nov. 1862	Improved processes for purifying lead and extracting and separating silver therefrom, and in machinery for those purposes.
WALL, JOSEPH - - -	407	15th Feb. 1862	Improvements in the construction and arrangement of apparatus for regulating the flow or passage of fluids.
WALL, JOSEPH - - -	1905	30th June 1862	Taps for controlling the flow or passage of fluids.
WALLACE, JOHN - - -	172	23rd Jan. 1862	Reaping-machines.
WALLER, RICHARD - - -	489	24th Feb. 1862	Improvements in machinery and apparatus for joining leather and flexible and textile materials, and for the manufacture of boots and shoes and other coverings for the feet.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WALLER, THOMAS - - -	743	17th March 1862	Breech-loading fire-arms. (Communicated by Christopher Tyler, Stephen Wood, Egerton Marcy and John Wilkinson.)
WALLER, THOMAS - - -	3215	1st Dec. 1862	Stoves.
WALLICH, GEORGE CHARLES, [M.D.	3362	16th Dec. 1862	Apparatus to be used in deep sea sounding for ascertaining the pressure and for raising specimens of the water.
WALLIS, ARTHUR - - -	48	7th Jan. 1862	Rotary screens.
WALLIS, ARTHUR - - -	190	24th Jan. 1862	Thrashing-machines.
WALLIS, RICHARD - - -	3258	4th Dec. 1862	Apparatus for loading and unloading vessels and transporting sacks, casks and other packages or parcels from one landing place or stage to another, or to or from one warehouse to another.
WALLS, MARK - - -	1569	26th May 1862	Railway signals.
WALMSLEY, HENRY - - -	3380	12th Dec. 1862	Regulating the tension of yarn in the processes of warping, winding, sizing, weaving and other similar purposes.
WALSHAM, JOSIAH - - -	1465	15th May 1862	A new or improved sleeve tie or fastener.
WALSHAM, ROBERT - - -	1465	15th May 1862	A new or improved sleeve tie or fastener.
WALTON, EDMUND - - -	3268	5th Dec. 1862	An improved article of wearing-apparel for the neck.
WALTON, FREDERICK - - -	259	31st Jan. 1862	Improvements in the manufacture of wire cards.
WALTON, GEORGE - - -	2437	3rd Sept. 1862	Circular box looms.
WALTON, JOSEPH - - -	2127	28th July 1862	Improvements in the mode of ventilating and heating rooms, Turkish baths, hot-houses and buildings of all kinds.
WALTON, WILLIAM - - -	259	31st Jan. 1862	Improvements in the manufacture of wire cards.
WALTON, WILLIAM HENRY -	2074	21st July 1862	Improvements in looms for weaving all kinds of textile fabrics.
WALTZ, JULES CHRISTIAN -	2648	29th Sept. 1862	Saddle-trees and collars. (Patented by Richard Archibald Brooman.)
WANKLYN, WILLIAM - - -	2162	30th July 1862	Apparatus for opening and conditioning East Indian and other tightly compressed cottons.
WARBRICK, JAMES - - -	791	21st March 1862	Improvements in engines for carding cotton and other fibrous materials.
WARBRICK, WILLIAM - - -	791	21st March 1862	Improvements in engines for carding cotton and other fibrous materials.
WARBURTON, JAMES - - -	222	28th Jan. 1862	Preparing cotton for spinning.
WARD, DANIEL GRAINGER -	806	22nd March 1862	Improvements in punching or perforating metal plates or sheets, and in apparatus or machinery to be employed for that purpose.
WARD, HENRY - - -	461	21st Feb. 1862	An improvement or improvements in ladies' saddles.
WARD, JOSEPH - - -	1559	23rd May 1862	Improvements in machinery or apparatus for the manufacture of textile or looped fabrics.
WARD, PETER - - -	2508	11th Sept. 1862	Manufacture of a double sulphide of calcium and sodium.
WARD, WILLIAM HENRY -	2668	2nd Oct. 1862	Improvements in night, day and fog signals, and the means for effecting the same.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WARDEN, GEORGE COCKBURN	3355	16th Dec. 1862	Improvements in ornamenting textile fabrics, leather and other surfaces, in a cement employed therein, which is also applicable to the waterproofing of fabrics and materials, and in apparatus for applying and spreading such waterproofing cement. (Communicated by Adolph Baldamus.)
WARLICH, FERDINAND [CHARLES.	90	13th Jan. 1862	Improvements in the manufacture of artificial fuel.
WARLICH, FERDINAND [CHARLES.	2157	30th July 1862	Machinery for dressing and shaping stone. (Communicated by Joseph Bouton.)
WARNE, CHARLES - - -	2192	2nd Aug. 1862	Manufacture of linen drabbett.
WARNER, ARTHUR - - -	37	4th Jan. 1862	Improvements in preparing materials for and in purifying coal gas.
WARNER, ARTHUR - - -	1171	22nd April 1862	Improvements in the construction of vessels of war and in floating or other batteries.
WARNER, ARTHUR - - -	1825	20th June 1862	Manufacture of pigments or paints from certain refuse materials.
WARNER, ARTHUR - - -	1953	5th July 1862	Improvements in preparing materials for and in purifying coal gas.
WARNER, FREDERICK - -	759	18th March 1862	Cocks or taps.
WARNERY, ANTOINE LOUIS -	2085	19th July 1862	Machinery for preparing fibrous substances for combing. (Patented by William Edward Newton.)
WAROQUIER, JEAN LOUIS DE -	2993	5th Nov. 1862	Commodos or waterclosets. (Patented by Richard Archibald Brooman.)
WAROQUIER, JEAN LOUIS DE -	2994	5th Nov. 1862	Taps or cocks. (Patented by Richard Archibald Brooman.)
WARREN, FREDERIC PELHAM -	1104	16th April 1862	Apparatus for steering sea-going vessels.
WARREN, JOSEPH - - -	1799	18th June 1862	Ploughs.
WARREN, SAMUEL - - -	925	2nd April 1862	Improvements in machinery for transmitting motion obtained by animal power to agricultural and other machines.
WARREN, WILLIAM WHITE -	211	27th Jan. 1862	An invention for the purpose of preventing the desecration of the dead, for sanitary purposes, and providing a cheap and inexpensive mode of interment.
WARWICK, THOMAS - - -	1233	26th April 1862	New or improved machinery for manufacturing hair pins and cottar pins, a part of which machinery may also be used for cutting off and pointing wires for various purposes.
WARWICK, THOMAS - - -	2147	29th July 1862	Improvements in the manufacture of the ribs and stretchers of umbrellas and parasols, and in machinery to be employed in the said manufacture.
WATKINS, FRANCIS - - -	2686	4th Oct. 1862	Apparatus for milking cows.
WATKINS, RICHARD - - -	428	18th Feb. 1862	Improvements in oil and spirit lamps and in the means of producing light therein, parts of which improvements are applicable to lamps generally.
WATNEY, ALFRED - - -	1477	15th May 1862	Improvements in constructing ships, vessels and other structures intended to resist shot.
WATREMEZ, JOSEPH - - -	988	7th April 1862	Improved apparatus for indicating a deficiency of water in steam generators.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WATSON, ARCHIBALD - -	669	12th March 1862	Hot-pressing apparatus.
WATSON, HENRY - - -	1645	31st May 1862	Pulp strainers or knotter bottoms.
WATSON, JOHN - . -	435	19th Feb. 1862	Machinery or apparatus for raising, lowering and otherwise moving or disposing casks and other bodies.
WATSON, JOHN - - -	1882	27th June 1862	Improvements in printing-machines and apparatus connected therewith for printing from letter-press forms.
WATSON, THOMAS - - -	506	25th Feb. 1862	Improvements in means or apparatus for preparing and combing wool and other fibres.
WATSON, WILLIAM - - -	2552	17th Sept. 1862	An improved process or processes for the preparation of certain colouring matters from aniline.
WATSON, WILLIAM HENRY -	2552	17th Sept. 1862	An improved process or processes for the preparation of certain colouring matters from aniline.
WATT, JOHN - - - -	2419	1st Sept. 1862	An improved method of treating flax and other similar vegetable fibrous substances to be used as substitutes for cotton.
WATTS, THOMAS - - -	2563	19th Sept. 1862	Combined thrashing-machines.
WAYGOOD, RICHARD - -	2429	2nd Sept. 1862	Steam-boilers.
WEALLENS, WILLIAM - -	2739	10th Oct. 1862	Surface condensers for marine and other engines.
WEARE, ROBERT - - -	188	24th Jan. 1862	Improvements in submarine and other telegraphic communication and in apparatus connected therewith.
WEARE, ROBERT - - -	1515	19th May 1862	Improvements in the means and apparatus for the protection of life and property by the agency of electricity.
WEARE, ROBERT - - -	1516	19th May 1862	Improvements in obtaining and applying light and heat by electricity.
WEATHERDON, BALDWIN FUL- [FORD.	2538	16th Sept. 1862	A new or improved engine for obtaining and applying motive-power.
WEAVER, WILLIAM HENRY -	350	11th Feb. 1862	Machinery for cultivating, ploughing, harrowing or scarifying the land.
WEBB, THOMAS GEORGE -	2187	1st Aug. 1862	Manufacture of flint glass.
WEBB, THOMAS GEORGE -	3260	4th Dec. 1862	Manufacture of articles of pressed glass.
WEBSTER, ALEXANDER -	1846	23rd June 1862	Machinery or apparatus for boring slate.
WEBSTER, CHARLES - - -	1170	22nd April 1862	Improvements in self-acting fountains adapted for garden-engines, fire-engines, and for raising and forcing water from mines, wells and other places.
WEBSTER, CHARLES - - -	2843	22nd Oct. 1862	Improvements in self-acting fountains adapted for garden-engines, fire-engines, and for raising and forcing water from mines, wells and other places.
WEBSTER, JAMES - - -	297	4th Feb. 1862	Gas-fittings.
WEBSTER, JAMES - - -	336	8th Feb. 1862	An improvement or improvements in the manufacture of certain descriptions of nails, bolts, spikes and pins.
WEBSTER, JAMES - - -	1558	23rd May 1862	Improvements in coating and indurating metals.
WEBSTER, JAMES - - -	1984	2nd July 1862	Improved apparatus for the manufacture of gas for illumination.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WEBSTER, JAMES - - -	2535	15th Sept. 1862	Manufacture of nitric and nitrous acids and other nitrogenous compounds.
WEBSTER, JAMES - - -	3147	22nd Nov. 1862	Construction of burners and blow pipes.
WEBSTER, JOHN - - -	1903	28th June 1862	Means of protecting steam-boilers from incrustation.
WEBSTER, JOHN - - -	2477	9th Sept. 1862	Preventing the incrustation of steam-boilers.
WEBSTER, RICHARD - - -	2809	18th Oct. 1862	Means or apparatus for preventing or mitigating accidents arising from collisions of railway trains.
WEDGEWOOD, RALPH - - -	1135	17th April 1862	Improved apparatus for facilitating the saving of life in cases of fire.
WEEKES, CHARLES - - -	1001	8th April 1862	Improvements in apparatus used in drawing water or other fluids from cisterns, tanks or other vessels.
WEEKS, GEORGE - - -	2497	11th Sept. 1862	Improvements in constructing frames, trays, pots or holders for flowers, plants or shrubs growing or otherwise, with arrangements for their display and also for drainage.
WEEMS, JOHN - - -	734	17th March 1862	Improvements in apparatus for indicating the pressure or quantity and in regulating the discharge of fluids.
WEEMS, WILLIAM - - -	734	17th March 1862	Improvements in apparatus for indicating the pressure or quantity and in regulating the discharge of fluids.
WEILD, WILLIAM - - -	2171	31st July 1862	Machines for cutting, shaping, rolling, drilling, screwing, milling and fluting metals.
WEIMAR, JOHANN PHILIPP -	1278	30th April 1862	A new composition for casting to represent marble. (Patented by Alexander Prince.)
WELCH, ALFRED PHIPPEN -	2709	7th Oct. 1862	Machinery for blocking and pressing hats and bonnets.
WELCH, EDWARD - - -	984	7th April 1862	Improvements in register stoves and fire-grates, and in ovens and kitchen ranges.
WELCH, GEORGE - - -	2283	14th Aug. 1862	Improvements in inkstands, metallic pens and penholders, and other instruments and appliances used in writing and marking.
WELCH, HENRY - - -	1803	2nd May 1862	Improvements in securing or attaching armour plates on or to ships or vessels.
WELCH, JOHN DAVIS - - -	2709	7th Oct. 1862	Machinery for blocking and pressing hats and bonnets.
WELLMAN, MARSHALL DANIEL	2436	3rd Sept. 1862	Fireplaces and stoves. (Patented by Frederick Collier Bakewell.)
WELLS, BENJAMIN - - -	92	13th Jan. 1862	Improvements in steam-engines, boilers, furnaces and apparatus in connection therewith or applicable thereto.
WELLS, HARRISON - - -	2888	27th Oct. 1862	Construction of field rakes for agricultural purposes. (Patented by William James Williams.)
WELLS, HENRY FOX - - -	1246	29th April 1862	Screw clamps or cramps for joiners' and other work.
WELLS, JOSEPH - - -	92	13th Jan. 1862	Improvements in steam-engines, boilers, furnaces and apparatus in connection therewith or applicable thereto.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WELLS, WILLIAM - - -	2456	5th Sept. 1862	Improvements in horse shoes and in the method of fastening the same.
WELLSTOOD, STEPHEN - -	60	9th Jan. 1862	Cooking-stoves or ranges.
WELTON, THOMAS - - -	1396	9th May 1862	Improvements in the preparation of beverages in connection with brewing.
WERNER, FREDERIK WILLIAM	173	23rd Jan. 1862	An improved method of and apparatus for destroying vermin.
WERY, VICTOR - - -	2612	25th Sept. 1862	Construction of chair settees. (Patented by Marc Antoine François Mennons.)
WESSELY, CHARLES - -	1956	7th July 1862	Carriages.
WEST, CHARLES - - -	194	25th Jan. 1862	Improvements in the insulation and covering of wire, and in the preparation of the materials for insulating the same.
WEST, GEORGE - - -	486	24th Feb. 1862	Improvements in the construction of washing-machines.
WESTERMANN, MICHEL AN- [TOINE.	3004	6th Nov. 1862	An improved lift and force pump. (Patented by William Edward Gedge.)
WESTMACOTT, CHARLES MAR- [TIN.	2258	12th Aug. 1862	Cements.
WESTMACOTT, PERCY GRAHAM [BUCHANAN.	493	24th Feb. 1862	Improvements in constructing and applying armour plating to ships, vessels and forts.
WESTON, JOHN - - -	1114	16th April 1862	Improvements in machinery for morticing, drilling and dove-tailing, and in tools to be used therewith.
WESTON, STRINGER - -	1674	3rd June 1862	Trusses.
WESTON, THOMAS ALDRIDGE -	62	9th Jan. 1862	A new or improved multiplying gearing for transmitting and multiplying power, which said gearing may be applied to cranes, windlasses, capstans and presses, and to other purposes where it is required to transmit and multiply power.
WETHERED, HENRY - -	1969	8th July 1862	Construction of handles, latches or fastenings for doors, gates and windows.
WEYMOUTH, AURELIUS LANG- [DON.	928	2nd April 1862	Improvements in bits for taming or subduing vicious horses and breaking colts. (Patented by Alfred Vincent Newton.)
WHEATCROFT, HENRY - -	122	16th Jan. 1862	Improvements in the manufacture of bonnet and cap fronts and similar fabrics.
WHEATCROFT, HENRY - -	757	18th March 1862	Improvements in apparatus or machinery for lasting and making boots and shoes.
WHEATER, JAMES - - -	1797	18th June 1862	Self-acting and other mules for spinning cotton or any other fibrous substances.
WHEATLEY, HENRY - -	1193	24th April 1862	Improvements in or applicable to the employment of steam for heating or drying purposes.
WHEATLEY, JOHN - - -	3231	2nd Dec. 1862	Improvements in the construction of ships of war and in the manufacture of armour plates for ships, forts and batteries.
WHEELER, CHARLES ANTHONY	2256	12th Aug. 1862	Machinery for perforating paper.
WHEELER, ROBERT - -	3377	17th Dec. 1862	Ploughs.
WHICKER, GEORGE - -	2689	4th Oct. 1862	Improvements in skates and in the method of securing or fastening the same.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WHINES, JOHN - - -	2537	16th Sept. 1862	Improved machinery for filling dipping clamps with tapers and match splints.
WHIPP, JOHN - - -	2222	8th Aug. 1862	An improved arrangement of apparatus and means for cleaning articles of ornament and jewelry.
WHITAKER, JOHN - - -	421	17th Feb. 1862	Machinery or apparatus for pulping roots.
WHITAKER, JOHN - - -	3026	10th Nov. 1862	Machinery or apparatus for pulping, stripping and slicing edible roots for cattle.
WHITEBURN, HENRY BENNETT	3080	15th Nov. 1862	An improved method of purifying sand to be used in the manufacture of glass and for other purposes where silica is used.
WHITE, BENJAMIN - - -	480	22nd Feb. 1862	Leggings or gaiters.
WHITE, DAVID BLAIR - - -	479	22nd Feb. 1862	Improvements in apparatuses for protecting liquids from the atmosphere while remaining in and during their discharge from the vessels containing the same.
WHITE, GEORGE - - -	2286	14th Aug. 1862	Manufacture of waterclosets.
WHITE, HORATIO - - -	254	31st Jan. 1862	Shirt collars.
WHITE, HORATIO - - -	2161	30th July 1862	Shirt collars.
WHITE, JOHN - - -	145	20th Jan. 1862	Life boats.
WHITE, JOSEPH - - -	83	11th Jan. 1862	Improvements in lubricating or oil cans or oil feeders, and in the mechanical arrangements for regulating the flow of oil therefrom.
WHITE, THOMAS - - -	810	24th March 1862	Improvements in the manufacture and ornamentation of nut crackers and lobster crackers.
WHITE, WILLIAM CORNWELL	3196	28th Nov. 1862	Apparatus for boiling and evaporating.
WHITE, WILLIAM CORNWELL	3206	29th Nov. 1862	An improved tap or cock.
WHITEHEAD, HENRY WALTON	916	1st April 1862	Improvements in machinery for carding wool and other fibrous substances.
WHITEHEAD, JAMES - - -	2417	1st Sept. 1862	Machinery or apparatus for preparing, spinning and doubling cotton, wool and other fibrous materials.
WHITEHEAD, JAMES - - -	2471	8th Sept. 1862	Certain improvements in looms for weaving.
WHITEHEAD, PETER HALSTEAD	2557	18th Sept. 1862	An improved support or stand for casks, barrels or other similar vessels.
WHITEHOUSE, JOHN - - -	994	8th April 1862	Improvements in the manufacture of metallic door and other knobs, and the ornaments of the pillars of metallic bedsteads and other articles of like manufacture, and in attaching metallic mounts to china or earthenware knobs, and ornaments and roses for knobs.
WHITESMITH, ISAAC - - -	1053	11th April 1862	Improvements in power looms and in pirn winding apparatus.
WHITFIELD, SAMUEL BENJA- [MIN.]	396	14th Feb. 1862	Improvements in the manufacture of iron bedsteads, and in the manufacture of ornamental iron tubes or columns for the construction and ornamentation of iron bedsteads.
WHITFIELD, SAMUEL BENJA- [MIN.]	3310	10th Dec. 1862	Dovetail joints used in metallic bedsteads and other articles of like manufacture.
WHITHAM, JOHN - - -	1868	25th June 1862	Apparatus used in working oil and other hydraulic presses.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WHITHAM, SAMUEL - -	1947	4th July 1862	Improvements in the manufacture of iron and steel and in the apparatus employed for that purpose. (Communicated by Thomas Wright.)
WHITHAM, SAMUEL - -	2831	21st Oct. 1862	Improvements in the manufacture of iron and steel and in the apparatus employed for that purpose.
WHITLEY, JOSEPH - -	3428	23rd Dec. 1862	Improvements in the construction of the permanent way of railways, which improvements are also applicable to railway wheels.
WHITTAKER, EDWIN - -	1457	14th May 1862	Improvements in machinery or apparatus for preparing cotton or other fibrous materials to be spun.
WHITTAKER, HENRY - -	2329	20th Aug. 1862	Improvements in healds or heddles and in the manufacture of the same.
WHITTLE, WILLIAM - -	2327	20th Aug. 1862	Improved machinery for the manufacture of nails and spikes.
WHITWORTH, CHARLES FREDERICK.	1300	2nd May 1862	Apparatuses for signalling upon railways.
WHITWORTH, JOSEPH - -	510	25th Feb. 1862	Improvements in manufacturing and preparing projectiles and in apparatus to be used for those purposes.
WHITWORTH, JOSEPH - -	1663	2nd June 1862	Improvements in shells.
WHITWORTH, ROBERT PLATT	1621	29th May 1862	Engines for carding cotton and other fibrous materials.
WHITWORTH, THOMAS SCHOFIELD.	45	7th Jan. 1862	Improvements in machinery or apparatus for spinning and doubling cotton and other fibrous materials.
WHYTOCK, ANDREW - -	815	24th March 1862	Improvements in the process of coating metals and in the apparatus employed.
WHYTOCK, ANDREW - -	825	25th March 1862	Improvements in the manufacture or shaping of iron or other material.
WHYTOCK, ANDREW - -	2342	22nd Aug. 1862	Improvements in making boxes and preparing sheets for the same.
WHYTOCK, ANDREW - -	2510	11th Sept. 1862	Improvements in the construction of coated and uncoated sheet iron boxes, and in the mode of and apparatus for straightening coated and uncoated sheet iron.
WIART, ADRIEN CARTON DE -	1372	7th May 1862	An improved method of preventing the destructive effects of vibration or jar on the permanent way of railways, and on the wheels, axletrees and other parts of carriages, and the working and other parts of machinery liable to shocks.
WICKENS, HENRY - - -	633	8th March 1862	Improvements in the means of indicating the presence of fire-damp or choke-damp in mines, and of dispersing fire-damp, and also of telegraphing in mines.
WICKENS, HENRY - - -	2804	17th Oct. 1862	Machinery for making nails. (Partly communicated by William Wickersham.)
WICKERSHAM, WILLIAM -	2804	17th Oct. 1862	Machinery for making nails. (Patented by Henry Wickens.)
WIGGINTON, WILLIAM LAWRENCE.	1970	9th July 1862	An improved method of and apparatus for curing smoky chimneys.
WIGHTON, WILLIAM - -	1775	14th June 1862	Apparatus for regulating watches and other time-keepers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WIGZELL, MONTAGUE - -	73	10th Jan. 1862	An improved double acting ventilator for railway carriages and other carriages and compartments.
WIGZELL, MONTAGUE - -	1810	19th June 1862	Improvements in the form of bolts and other fastenings for ship-building and other purposes.
WILCOX, JOHN WELTON -	447	19th Feb. 1862	Improved modes of protecting iron boilers, tanks and vats from wear arising from galvanic action. (Patented by George Tomlinson Bougfield.)
WILDE, HENRY - - -	2845	22nd Oct. 1862	Electro-magnetic telegraphs.
WILDE, HENRY - - -	3240	3rd Dec. 1862	Improvements in electro-magnetic telegraphs and in apparatus connected therewith.
WILEY, WILLIAM EDWARD -	1557	23rd May 1862	Improvements in the manufacture of certain kinds of penholders, which improvements may also be applied to pencil cases and holders for crayons and other solid writing or marking materials.
WILKES, SAMUEL - - -	2332	20th Aug. 1862	An improved attachment for door knobs.
WILKIE, DAVID - - -	452	20th Feb. 1862	A ship's compass which is not to be affected by local attraction or deviation, to be used by sailing vessel or steamer.
WILKIE, DAVID - - -	501	25th Feb. 1862	A composition to be used on the bottoms of sailing vessels and steamers for the prevention of barnicle and other matter adhering thereto while employed in sea water.
WILKINS, JOHN - - -	618	7th March 1862	Improvements in the manufacture of warp fabrics in warp machines.
WILKINS, NICHOLAS - -	2040	16th July 1862	Sewing-machines. (Patented by Alfred Vincent Newton.)
WILKINS, WILLIAM CRANE -	2664	2nd Oct. 1862	Gas burners.
WILKINS, WILLIAM NOY -	627	8th March 1862	Improvements in the manufacture of pigments for oil and water colours.
WILKINSON, DAVID - -	2001	11th July 1862	Improvements in heating ores and in generating steam, and also in the apparatus employed therein. (Patented by William Bliss.)
WILKINSON, JOHN - - -	743	17th March 1862	Breech-loading fire-arms. (Patented by Thomas Waller.)
WILKINSON, MATTHEW -	2336	21st Aug. 1862	Improvements in carding-engines, parts of which improvements are applicable to drawing and such like frames.
WILKINSON, THOMAS - -	2320	19th Aug. 1862	Machinery or apparatus for singeing pigs.
WILKINSON, WILLIAM - -	86	11th Jan. 1862	Improvements in ornamenting and decorating metals, glass, porcelain, parchment and other skins, and in the materials and ingredients employed therefor, also in protecting silver and gold on said materials and on surfaces or plates of glass or metal or plates of glass and metal combined, applicable to works of art, furniture, jewellery and other articles of a useful and ornamental character.
WILKINSON, WILLIAM - -	2600	23rd Sept. 1862	Improvements in the manufacture of knitted elastic fabrics and in the machinery employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILLANS, JACOB GEOGHEGAN	1401	10th May 1862	Improvements in the treatment of the product from iron blast furnaces (whether moulded or otherwise) usually termed pig or cast iron or castings.
WILLCOCK, JOSEPH - -	2051	18th July 1862	A new ornamental fabric and the machinery for producing the same. (Communicated by Amos Hanes Boyd.)
WILLCOX, JAMES - - -	448	19th Feb. 1862	Improvements in the manufacture of frills or ruffles and in the machinery or apparatus employed therein. (Communicated by Chauncey Orrin Crosby.)
WILLIAMS, ALFRED - -	1325	5th May 1862	The construction of a backed form or seat capable of being converted into a level table with seat or a desk either level or sloping or at any angle.
WILLIAMS, CHARLES WYE -	2468	8th Sept. 1862	Steam-boilers.
WILLIAMS, ELIJAH DAY -	1764	13th June 1862	An improvement in elongated bullets. (Patented by William Edward Newton.)
WILLIAMS, HENRY - -	2947	31st Oct. 1862	Machinery or apparatus employed in the manufacture of lace or trimmings made on bobbin net or twist lace machines.
WILLIAMS, THOMAS - -	1768	14th June 1862	Improvements in churns, partly applicable to washing-machines.
WILLIAMS, TURNER - -	738	17th March 1862	Improvements in cranks for driving sewing-machines and other machinery. (Patented by George Tomlinson Bousfield.)
WILLIAMS, WILLIAM - -	379	13th Feb. 1862	Pianofortes.
WILLIAMS, WILLIAM JAMES -	66	9th Jan. 1862	Improvements in the manufacture and structure of wicks and in the application of the same to the manufacture of candles.
WILLIAMS, WILLIAM JAMES -	1021	10th April 1862	Improvements in the method of and apparatus for letting on and cutting off the supply of gas to groups or districts of street and other lamps from a central point or dépôt.
WILLIAMS, WILLIAM JAMES -	1750	12th June 1862	Apparatus for cutting up and preparing as food or chaff for animals or for any other purpose straw, hay, corn, stalks, roots and all other similar substances. (Communicated by Joseph Eysstra.)
WILLIAMS, WILLIAM JAMES -	1751	12th June 1862	Improvements in lamps more particularly designed for burning paraffin or coal oil and other hydro-carbons of different grades, or any combustible material used for obtaining light. (Communicated by Joseph Eysstra.)
WILLIAMS, WILLIAM JAMES -	2524	13th Sept. 1862	Improved apparatus or machinery for punching, cutting or pressing metal or other plates or substances, which said improvements are also applicable to tension rods.
WILLIAMS, WILLIAM JAMES -	2888	27th Oct. 1862	Construction of field rakes for agricultural purposes. (Partly communicated by Harrison Wells.)

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILLIAMS, WILLIAM MATTIEU	1940	3rd July 1862	Apparatus for the distillation of coal and peat and such other substances as are or may be used for the manufacture of solid and liquid volatile hydro-carbons.
WILLIAMSON, ALEXANDER [WILLIAM.	181	24th Jan. 1862	Tubulous boilers or steam generators.
WILLIAMSON, ALEXANDER [WILLIAM.	619	8th March 1862	Improvements in apparatus for generating steam or for generating and superheating steam.
WILLIAMSON, BENJAMIN -	2811	18th Oct. 1862	An improved substitute for tomb stones, tablets, monuments and other similar memorials or commemorative records.
WILLIAMSON, WELBURN WILKS	296	4th Feb. 1862	Apparatus for drying clothes and fabrics.
WILLIAMSON, WELBURN WILKS	3089	17th Nov. 1862	Washing, wringing and mangling machines.
WILLIS, EDWARD COOPER -	317	6th Feb. 1862	Improvements in the treatment of wax and other substances of a similar nature.
WILLIS, HENRY - - -	1284	30th April 1862	Valves for the supply and discharge of gaseous bodies.
WILLOUGHBY, RICHARD -	1407	10th May 1862	Improved apparatus for exhibiting and giving rotatory and traversing motion to placards, advertisements, scenes and other objects.
WILSON, ALLEN BENJAMIN -	1712	7th June 1862	A new and improved photographic camera. (Patented by George Haseltine.)
WILSON, CHARLES EDMUND -	2284	14th Aug. 1862	An improvement in buckle fastenings for braces and belts.
WILSON, CHARLES EDMUND -	3467	29th Dec. 1862	Improvements in articles of wearing-apparel for the neck.
WILSON, CHRISTOPHER NAY- [LOB.	2724	9th Oct. 1862	Rag machines.
WILSON, DAVID - - -	63	9th Jan. 1862	Machinery for pulping and preparing coffee.
WILSON, DAVID - - -	65	9th Jan. 1862	Hydraulic presses.
WILSON, DAVID - - -	946	3rd April 1862	Presses for pressing cotton, fibrous materials and hay.
WILSON, EDWARD BROWN -	1260	29th April 1862	An improvement in the machinery or apparatus used in the manufacture of malleable iron and steel.
WILSON, EDWARD BROWN -	1339	5th May 1862	An improvement in the machinery or apparatus used in the manufacture of malleable iron and steel.
WILSON, EDWARD BROWN -	2191	2nd Aug. 1862	Manufacture of iron and steel.
WILSON, EDWARD BROWN -	2760	13th Oct. 1862	Apparatus employed in the manufacture of iron and steel.
WILSON, EDWARD BROWN -	3067	14th Nov. 1862	Improvements in the method of conveying air, steam, gases and fluids to oscillating or vibrating cylinders and vessels, and in the apparatus employed therein.
WILSON, EDWARD BROWN -	3263	5th Dec. 1862	Improvements in railway wheels and in the mode of manufacturing the same.
WILSON, EDWARD BROWN -	3305	9th Dec. 1862	Machinery or apparatus for rolling metals.
WILSON, EDWARD BROWN -	3351	15th Dec. 1862	Machinery or apparatus for rolling metals.
WILSON, EDWARD BROWN -	3398	19th Dec. 1862	Machinery or apparatus for forging and pressing metals and other substances.
WILSON, EDWARD BROWN -	3426	23rd Dec. 1862	Apparatus to be employed in the manufacture of malleable iron and steel.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILSON, JAMES - - -	2583	20th Sept. 1862	An improved composition for preventing and removing incrustation in boilers.
WILSON, JAMES - - -	3082	15th Nov. 1862	Hydraulic pumps. (Communicated by Jules Lecoqte.)
WILSON, JAMES GREEN - -	1708	6th June 1862	Knitting-machinery. (Patented by Alfred Vincent Newton.)
WILSON, JAMES LEONARD -	1428	12th May 1862	Improvements in calendering woven fabrics and in the apparatus employed for this purpose.
WILSON, JOHN - - -	832	26th March 1862	Improvements in the apparatus used for and in the method of hot pressing or finishing plaids, shawls, handkerchiefs and other woven fabrics.
WILSON, JOHN - - -	1758	13th June 1862	Construction of ships for war purposes, applicable also to the mercantile marine.
WILSON, RILEY PORTER - -	334	8th Feb. 1862	Washing-machines. (Patented by John Adams Knight.)
WILSON, ROBERT - - -	765	19th March 1862	Improvements in hydraulic presses and in machinery or apparatus for raising or forcing fluids.
WILSON, THOMAS - - -	1329	5th May 1862	Improvements in the manufacture of armour plates for ships of war and batteries, and in fastening or securing armour plates to ships of war and batteries.
WILSON, THOMAS - - -	1842	23rd June 1862	A new or improved dress fastening, which said fastening is also applicable to the fastening of bands and belts in general, and to other like purposes.
WILSON, THOMAS BARNES -	659	11th March 1862	Improvements in means or apparatus for the splitting of cane and other fibrous substance.
WILSON, WILLIAM - - -	228	28th Jan. 1862	Improvements in the process of manufacturing artificial stones, parts of which improvements are also applicable to the manufacture of artificial fuel.
WILSON, WILLIAM - - -	659	11th March 1862	Improvements in means or apparatus for the splitting of cane and other fibrous substance.
WILSON, WILLIAM - - -	2777	15th Oct. 1862	An improved oblong drawing room bagatelle and billiard table with reversible top and made in various shapes and sizes.
WILSON, WILLIAM VIRGO -	3387	18th Dec. 1862	Production of colouring matters.
WINANS, WILLIAM LOUIS -	188	18th Jan. 1862	Improvements in the manner of mounting and apparatus for manœuvring cannon or ordnance on ships or vessels of war and floating batteries.
WINANS, WILLIAM LOUIS -	841	27th March 1862	A new or improved mode of mounting and apparatus for manœuvring ordnance in land fortifications.
WINDHAUSEN, FRANCIS JOSEPH	1867	25th June 1862	Caloric engines named fire air-engines.
WINGATE, THOMAS, junior -	3295	9th Dec. 1862	Dredging machinery.
WINIWARTER, GEORGE - -	3327	12th Dec. 1862	Improvements in the construction of portable houses, walls or partitions of buildings, strong rooms, safes, refrigeratories, reservoirs, piers and other structures, also applicable to the construction of casks and similar articles, boats and ships.

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AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WINSBORROW, JOHN - -	1196	24th April 1862	Wet gas meters.
WINSLOW, ALONZO PAGE - -	1795	17th June 1862	Improvements in roofs for railroad cars and hurricane decks of vessels. (Patented by George Haseltine.)
WINTER, JAMES, junior - -	2961	1st Nov. 1862	An improved safety tap or cock applicable to gas burners, gas pipes, and vessels containing gas, also water pipes, steam pipes, and vessels containing inflammable and other liquids, compressed air and spirituous liquors.
WINTER, WILLIAM - -	508	25th Feb. 1862	Improved condensing apparatus adapted for high pressure steam-engines especially locomotive engines. (Patented by John Piddington.)
WITTIG, ALBERT RUDOLPH - -	3292	8th Dec. 1862	Improvements in galvanic apparatus. (Patented by Edward Thomas Hughes.)
WOOD, CHARLES - - -	457	20th Feb. 1862	Horse rakes.
WOOD, JOHN BLAND - - -	1812	19th June 1862	Manufacture of driving straps or bands, the backs of wire cards and cop tubes.
WOOD, JOSEPH - - -	1611	29th May 1862	Stereoscopic apparatus.
WOOD, JOSEPH - - -	2156	30th July 1862	A new or improved safety or moveable self-acting crossing for railways. (Patented by George Nock.)
WOOD, NICHOLAS - - -	1364	7th May 1862	Apparatus for grinding, smoothing and polishing plate glass.
WOOD, STEPHEN - - -	743	17th March 1862	Breech-loading fire-arms. (Patented by Thomas Waller.)
WOOD, THOMAS - - -	2353	22nd Aug. 1862	Slide valves of steam-engines.
WOOD, THOMAS HENTON - -	617	7th March 1862	Apparatus employed in the manufacture of artificial fuel.
WOOD, WALTER ABBOTT - -	511	25th Feb. 1862	Machinery for reaping and mowing. (Patented by William McIntyre Cranston.)
WOOD, WILLIAM - - -	356	11th Feb. 1862	Improvements in the process of manufacturing pomfret or liquorice cakes.
WOOD, WILLIAM PICKARD - -	1746	12th June 1862	Preparing colouring matters for dyeing and printing.
WOOD, WILLIAM STUART - -	542	27th Feb. 1862	Improvements in valves for regulating the flow of steam, water or other fluids, and in means or apparatus for working or actuating them direct from the governor or when worked by expansion cams in connection therewith.
WOODALL, JOHN FRANCIS - -	951	4th April 1862	Ventilating carriages for common roads.
WOODBURY, JAMES - - -	375	13th Feb. 1862	Projectiles. (Patented by William Edward Newton.)
WOODBURY, JOSEPH PAGE - -	893	31st March 1862	An improvement in arming war vessels.
WOODFORD, JOHN WYMAN - -	2169	30th July 1862	Machinery for raising or forcing water.
WOODFORD, JOHN WYMAN - -	2562	18th Sept. 1862	Improvements in machinery and apparatus used for driving and drawing piles, also for raising soil, and also in shoes and hoops for piles.
WOODHOUSE, ANDREW - - -	960	4th April 1862	Improvements in the arrangements of kilns and flues for burning bricks, tiles, quarries and other like articles, and in utilizing the waste heat of the said kilns, and in stoves for drying bricks, tiles, quarries and other like articles.

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ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
YATES, HENRY - - -	179	23rd Jan. 1862	Improvements in machinery for bending, repairing or renewing defective or damaged parts of iron rails.
YEAKEL, DAVID TOMLINSON -	1108	16th April 1862	Improvements in the manufacture of cannon and other ordnance, and of solid and hollow cylinders for shafting and other purposes, of wrought iron or steel or both combined. (Patented by William Edward Newton.)
YOUNG, JAMES - - -	876	29th March 1862	An improved method of removing and preventing incrustation in steam-boilers.
YOUNG, ROBERT - - -	889	31st March 1862	Improvements in apparatus for cleaning, separating, washing and drying grain.

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ZACHARIE, ISACHAR - -	883	29th March 1862	Improved machinery for cutting cork so as to render the same suitable for stuffing purposes. (Patented by Emanuel Bernard Hart.)
ZAMBRA, JOSEPH WARREN -	1223	25th April 1862	Improvements in the construction of mercurial minimum thermometers.
ZAMBRA, JOSEPH WARREN -	2881	25th Oct. 1862	Improved apparatus for ascertaining or testing the explosibility of liquid hydrocarbons. (Communicated by Guiseppe Tagliabue.)
ZIMARA, RUDOLF - - -	1204	24th April 1862	Stoves for heating and ventilating buildings.
ZINGLER, MAXIMILIAN - -	706	14th March 1862	Improvements in manufacturing articles from ivory and bone.



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